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ABSTRACT

This integrated review of national trends affecting the health care system is primarily intended to facilitate the planning efforts of health care providers and consumers, Government agencies, medical school administrators, health insurers, and companies in the medical market. It may also be useful to educators as a textbook to give their students some understanding of the complex interaction of various forces inside and outside the U.S. health care system. The document contains four chapters: (1) Changes in the Environment Affecting the Health Care System (Population Characteristics and Trends, Technology, and Disease Trends), (2) Government Programs and Regulation (The Government's Role in Disease Prevention and Health Research, The Government's Role in Determining the Supply of Health Manpower, Government Financing and Regulation of Health Facility Construction and Operation, The Government's Role in the Provision and Organization of Health Services, Government Financing of Health Care, Regulation of Health Service Costs and Utilization, and Implications for Health Care Providers), (3) Trends in Health Care Costs and Methods of Payments (Overall Trends in Health Care Expenditures and Costs, Hospital Expenses, The Growth of Health Insurance, Use of Health Insurance to Control Costs, National Health Insurance (NHI), Health Maintenance Organizations (HMO's), Foundations, and Appendix: The Kaiser Plan), and (4) The Health Care System (Organization of the Health Care System, Hospitals, Doctors, and Nurses). A 5-page summary and a 20-page bibliography are included. (HD)

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TRENDS AFFECTING THE
U.S. HEALTH CARE SYSTEM

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PREFACE

This report, prepared by Cambridge Research Institute, presents an integrated review of trends affecting the U.S. Health Care System and thus should facilitate the planning efforts of health care providers and consumers, Government agencies, medical school administrators, health insurers, and companies in the medical market. While the report is designed to assist policy makers in making decisions, educators may also find it useful as a textbook to give their students some understanding of the complex interaction of various forces inside and outside the health care system.

The book is an updated and expanded version of an earlier trend analysis, completed in January 1972, which has been widely used in health planning and in managerial education of health care personnel. We hope that the expanded version will be even more useful to those concerned with learning about the health care system and with planning in that system. The report is concerned only with national trends; a similar analysis of state and local trends would be required for planning on a state or local basis.

Acknowledgments

Support for this edition came from three sources: the Department of Health, Education, and Welfare under Contract No. HRA 230-75-0072; the New England Deaconess Hospital of Boston, Massachusetts; and the Cambridge Research Institute. The New England Deaconess Hospital allowed us to base the update on the original report prepared by Cambridge Research Institute for them. For this, we express our appreciation. Starting in late 1972 and continuing through mid-1975, Cambridge Research Institute began the updating process on its own budget. The impetus and means for completing the job were provided by Mr. Eugene J. Rubel, Acting Director, Bureau of Health Planning and Resources Development in his role of Project Officer for Contract No. HRA 230-75-0072.

The author of this report is Carol Cerf. Elizabeth Huard led the research effort and was assisted by Barbara Campbell. The original conception for the report was developed by John D. Glover and James B. Webber, Directors of Cambridge Research Institute, and this latest version was planned and produced under overall direction of James B. Webber. Contributions, comments, and critiques were offered by other members of the Cambridge Research Institute staff, particularly Carl Thieme. Thanks are due to Dr. Eoin W. Trevelyan of the Harvard Business School for the encouragement he provided us throughout the effort.

Gerald A. Simon
Managing Director
Cambridge Research Institute

FOREWORD

In order to plan for the provision of health services and the various components of the health care delivery system which provide those services, it is necessary to understand the influences on and trends affecting that system. It is in this context that we have provided for the development and publication of Trends Affecting the U.S. Health Care System.

This monograph presents a detailed overview of these trends from a national perspective. The authors review the changes in the environment affecting the health care system and the Government's changing role in health. They also provide an overview of trends in the delivery system itself--with a focus on facilities and health manpower.

It is our hope that this document will be particularly valuable to those who participate in the health planning process at State and local levels. In addition to providing a national comparison, it can serve as a prototype for similar analyses by health planners in their own areas. At the same time, we hope that the monograph will be of use to health system managers, who are affected by and influence these trends, and to educators and their students, who need such knowledge as part of their training for health planning or health administration careers.

Gene Rubel

Eugene J. Rubel
Acting Director
Bureau of Health Planning
and Resources Development

INTRODUCTION

National health expenditures, mushrooming from $12 billion in 1950 to $104.2 billion in 1974, now consume 7.7% of our gross national product, versus the 4.6% they consumed in 1950. While the Consumer Price Index rose 98% between 1950 and 1974, physicians' fees rose nearly 168%, and the cost of a semiprivate hospital room rose 532%!!! This startling escalation in medical care costs has provoked both government regulators and health insurers to seek means of curbing hospital costs. Community hospitals, which enjoyed a period of euphoric growth in the 1960's, suddenly find themselves in a financial bind because they cannot raise their prices as freely as they did in the past, and philanthropic gifts are less readily available. Many states have instituted Certificate of Need laws to restrict the bullish expansion of health care facilities that occurred in the last decade or two. Congress has passed a law mandating regional health planning and is contemplating programs for national health insurance. U.S. medical schools are overwhelmed with applicants, yet hospitals must hire large numbers of foreign medical graduates to staff their residency programs. The newspapers continue to talk of our "health care crisis" and the failure of the U.S. health care system to serve all segments of the population equitably.

The dramatic strides made in medicine in the last 20 years do not seem to have been matched by equally substantial improvements in the organization of U.S. health care. Although medical care in this country is excellent in many respects, there are complaints that it is not provided as equitably, efficiently, and economically as would be desirable.

But improvements in the U.S. health care system can be designed rationally only if there is a clear understanding of how the system operates at present, what internal changes are occurring in the system, and what trends in the environment are likely to affect the system. This study attempts to apply a methodology called Environmental Analysis and Planning to the health care system by providing detailed statistics on the existing U.S. health care system and analyzing the internal and external trends pushing the system in sometimes contradictory directions. What is the impact on health care of changes in the economy, the demography, and the political and social values of this country? How has the expansion of health insurance affected the delivery of health care? What has been the impact of government programs and policies? How is the health care system responding to these changes in its environment?

Analysis of questions such as these is used to bring into focus the key issues facing health care policy makers, whether they be health care providers, health planners, government regulators, or health insurers. This study hopefully will also be useful to educators training future health care policy makers and to intelligent laymen concerned about the deficiencies in our present health care system. The data we have collected and analyzed is designed to provide some background information for decision-making about the provision of health care in this country. Our study does not seek to prescribe policies but to serve as a tool for those who in one way or another will play a role in making policies in this crucial area of American life.

CHAPTER I

CHANGES IN THE ENVIRONMENT AFFECTING THE HEALTH CARE SYSTEM

Changes in the characteristics of the U.S. population, new developments in technology, and changing disease patterns are affecting both the demands upon the U.S. health care system and the acceptable methods of meeting those demands.

POPULATION CHARACTERISTICS AND TRENDS

The population that must be cared for by the U.S. health care system is growing at a slower rate, but changes in the characteristics of this population are increasing the demand for health care: 1) Declining birth rates and advancing life expectancies are resulting in a larger percentage of the population in the older age groups which have greater health care problems; 2) rising educational levels and affluence are stimulating the demand for good health care and making the public more critical of health care providers; 3) the poor are gaining better access to the health care system as health care has grown to be regarded as a right rather than a privilege and as this right is increasingly bolstered by government policies.

GROWTH RATE

The rate of population growth in the United States is slowing down. Between 1960 and 1970 the total resident population of the United States grew 13%, reaching 204 million in 1970.[1] This is significantly lower than the 18% increase registered between 1950 and 1960. Bureau of the Census estimate for 1980 indicate that the increase over 1970 may be as low as 8%.

The rate of population growth varies considerably from region to region in the United States. While the U.S. population as a whole grew 13% between

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[1] U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States, 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Tables 3, 13, 14. The 1970-80 growth rate would be as low as 8% only if the average number of births per 1,000 women upon completion of childbearing is as low as 1,800.

1960 and 1970, the population in the West grew 24%, the population in the South grew 14%, and the population in the Northeast and in the North Central regions grew less than 10%. (See Exhibit I-1.[1])

Thus, although the total United States population continues to increase, the rate of increase is declining appreciably, particularly in the Northeast and the North Central sections of the country.

The slowdown in population growth should cause health care facilities to be more cautious about expanding than they were during the years of sizeable population increases. Population projections for a facility's service area should be carefully studied before embarking on an expansion program.

BIRTH RATE

The principal reason for the slowdown in population growth is the dramatic drop in the birth rate since 1957. In 1957 the number of births per 1,000 population was 25.2; by 1973 the birth rate had fallen to 14.9.

The fertility rate has plummeted even faster than the birth rate. In 1957 there were 122.9 births per 1,000 women of childbearing age (age 15-44); by 1973 the fertility rate had fallen to 69.3, a drop of nearly 50%. (See Exhibit I-2.) Women today are having only 1.9 children per completed family -- less than the population replacement rate of 2.1 children.[2]

The baby boom in the 1940's and early 1950's, however, is currently creating a spurt in the number of women of child-bearing age: By 1980 the number of women in the high fertility ages of 20 to 29 will jump 14%

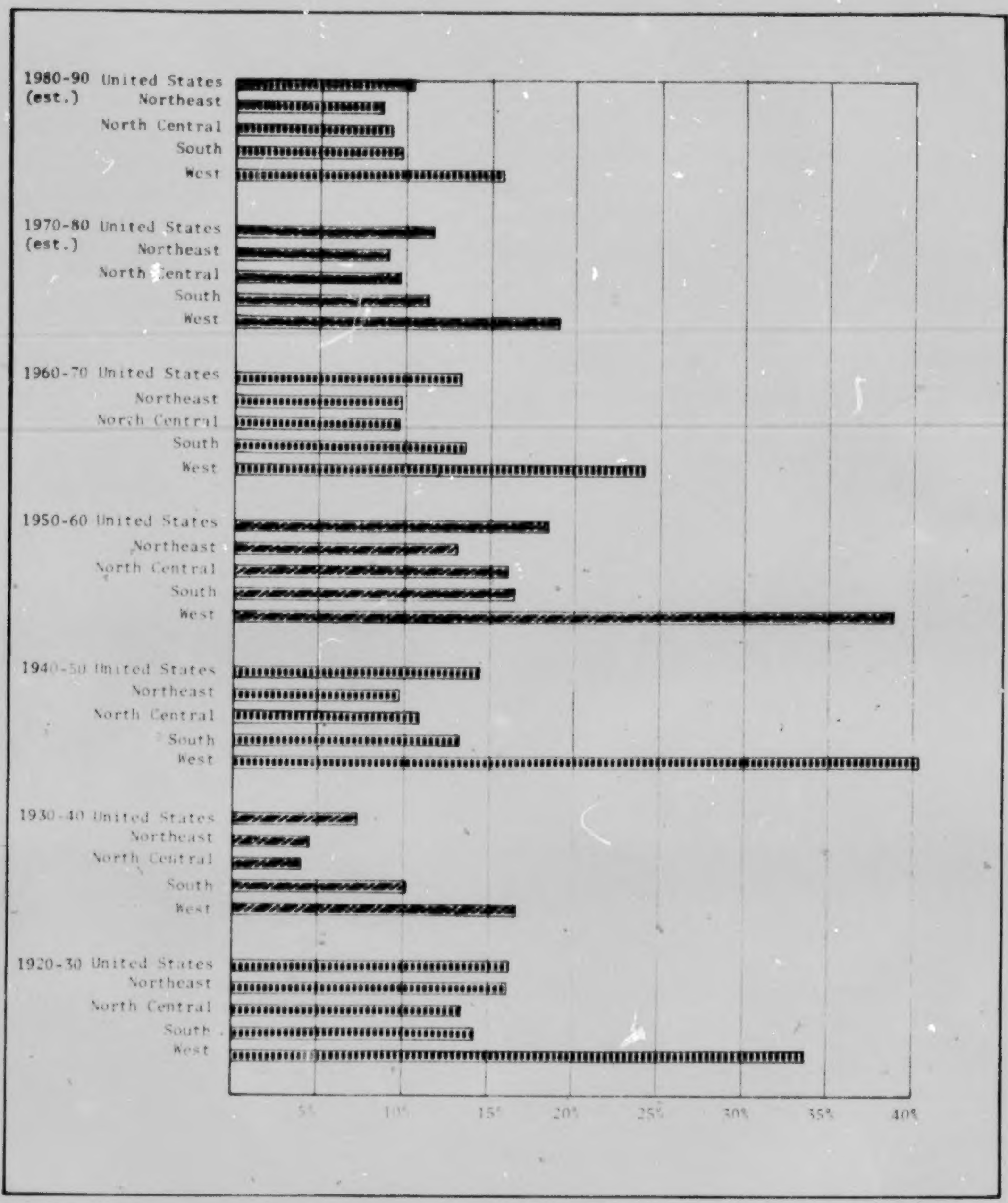
---

[1] For data on the rates of population growth in the individual states, see Supplementary Exhibit S-I-1 at the end of this chapter.

[2] "Birth, Fertility Rates at a New Low in U.S.," New York Times, April 16, 1974, p. 1.

Exhibit I-1

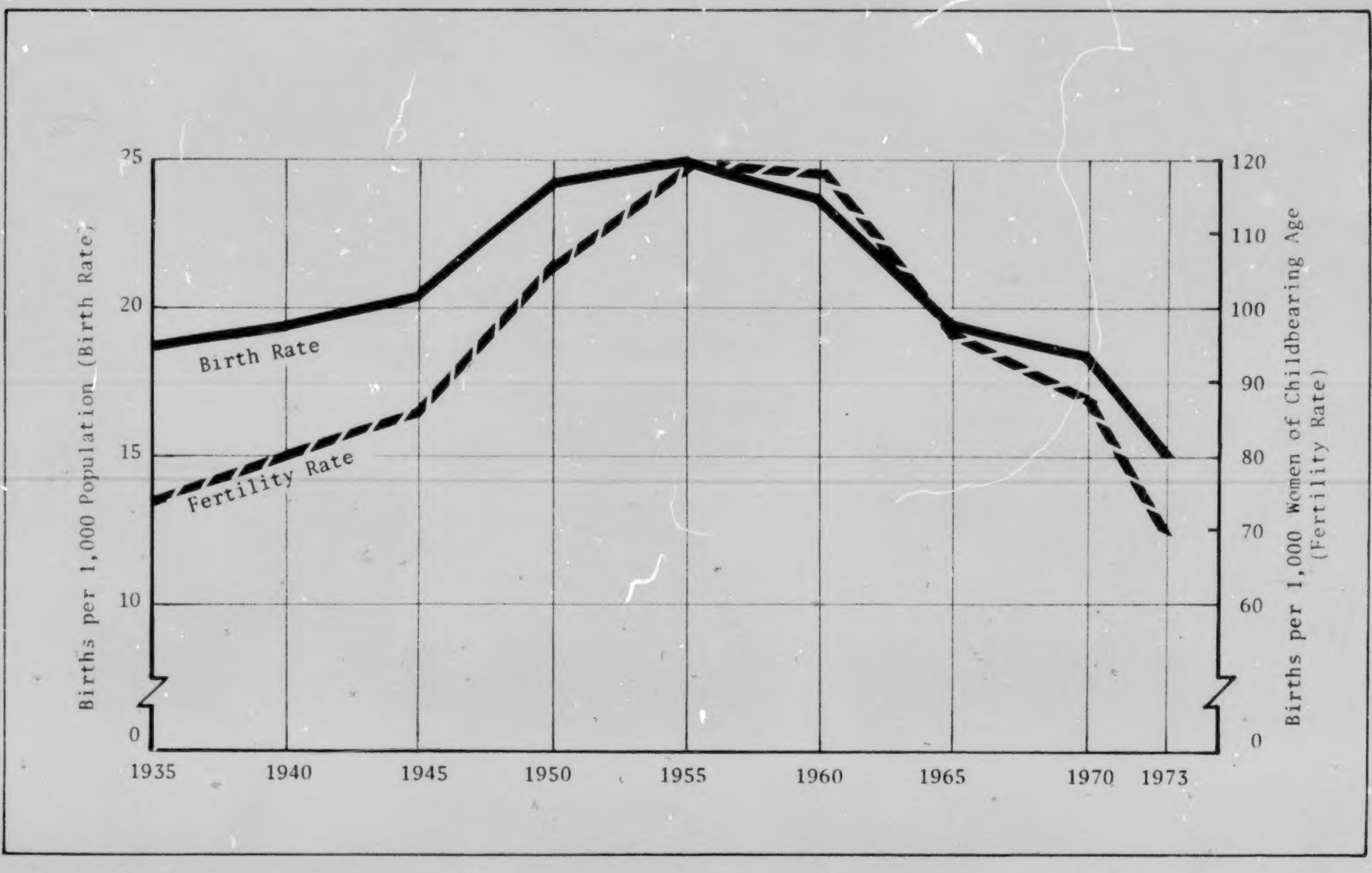
UNITED STATES POPULATION GROWTH, BY REGION: 1920-1990



Source: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States: 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Tables 13, 14. The 1980 and 1990 population projection is the Census Bureau's projection under Series I-E, which assumes 2,100 births per 1,000 women upon completion of childbearing and continuation of 1960-1970 migration patterns.

Exhibit I-2

UNITED STATES BIRTH RATE AND FERTILITY RATE: 1935-1973



Source: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States: 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Tables 9, 67, 71.

over the 1974 figure.[1] Therefore, even though these women are having smaller families, the birth rate -- births per 1,000 population -- may rise for a time. However, the fertility rate -- births per 1,000 women of childbearing age -- seems likely to continue its downward trend, unless there are unforeseen changes in lifestyles and values. Among the many reasons for the falling fertility rate are the following:

- Better contraceptive methods are now available.
- Abortion laws are less restrictive.
- Family planning services are increasingly available to the poor as well as the middle class. As a consequence, the fertility rate among the poor has fallen considerably faster than the rate among other segments of the population. The fertility rate among women in the poverty level classification fell from 153 in 1960-1965 to 121 in 1966-1970, a 21% decrease. In contrast, the fertility rate among women in the non-poverty level classification fell from 98 in the early 1960's to 81 in the later 1960's, a decline of 17%.[2] Thus, the fertility rate of the poor was 56% higher than that of others in the early 1960's but only 49% higher in the later period. If the analysis could be extended up to 1973, the statistics would presumably be even more striking.
- The escalation in college tuitions and other costs may make people more concerned about restricting the size of their families.
- More women are working and therefore concerned about limiting the number of children they must care for.

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[1] "In 1974, the Birth Rate Moved Up," New York Times, March 16, 1975, Section 4, p. 5.

[2] Frederick S. Jaffe, "Low Income Families: Fertility Changes in the 1960's," Family Planning Perspectives, January 1972.

- With women's liberation, exuberant motherhood is less fashionable than it once was.
- Religion is no longer having such an impact on family planning. For example, the birth expectations of Catholic women aged 20 to 24 declined more than twice as much as those of non-Catholic women.[1]

The declining fertility rate will affect the health care system in many ways, although the temporary rise in the birth rate in the next few years may mitigate some of these effects for a time.

- Those hospital obstetric units already suffering from low occupancy levels may be under increasing pressure to close. There may also be less demand for the services of obstetricians, though abortions may keep some obstetricians and some hospital OB units busy.
- The demand for hospital pediatric units will also decline, in part because of the lower fertility rate and in part because of medical advances which are reducing the need for hospitalization of sick children. For example, the polio vaccines have dramatically reduced the incidence of this disease, and antibiotics have reduced the need to hospitalize children with pneumonia.
- Better contraception and greater ease in obtaining abortions may reduce neo-natal mortality, for mortality rates tend to be higher among illegitimate babies, among babies born of older mothers, and among babies born to mothers with a large number of children.[2]

---

[1] Edwin Gold, "Public Health Aspects of Future OB-GYN Services," Obstetrics and Gynecology, March 1973, p. 462.

[2] Helen Chase, ed., "A Study of Risks, Medical Care, and Infant Mortality," American Journal of Public Health, September 1973 Supplement. Also, Margery Barnett, "Legalized Abortion Credited with Some Health Advances," Hospital Tribune, February 11, 1974.

Mortality rates tend to be higher also for babies born into poor families,[1] and it is in these socio-economic classes that the fertility rate is falling the fastest.

- Differences in fertility rates among various population segments seem to be diminishing. Therefore, health facilities serving population groups that in the past had particularly high fertility rates may face a steeper drop in the demand for their services than facilities serving population groups whose fertility rates were always comparatively low.
- With smaller families, there may be less migration to the suburbs. The population served by inner city health facilities may cease to fall, and the population served by suburban health facilities may not grow so rapidly as in the past. This trend will, of course, be accentuated if gasoline shortages or very high gas prices increase the difficulty of commuting from the suburbs.

AGE DISTRIBUTION

The population of the United States is growing older. Fewer babies are being born, and people are living to more advanced ages. In 1920 life expectancy at birth was 54.1 years; in 1950 it was 68.2 years; today it is over 71. (See Supplementary Exhibit S-I-2.) The advancing life expectancy in the United States can be ascribed to a number of factors including a higher standard of living, new medical discoveries, better and more sophisticated health care, and improved public health programs.

One major reason for the greater life expectancy, however, is not the improved health of adults, but the steep decline in infant mortality. A male baby born in 1971 has 5.5 more years life expectancy than a male baby born in 1939-41, but a 20-year-old male in 1971 has only 2.7 more years life expectancy than his equivalent in 1939-41. The drop in maternal mortality is one reason life expectancy has risen far faster for women than for men. Life expectancy for female babies rose 8.3 years between 1939-41 and 1971, and for 20-year-old females it rose nearly 6 years.[1]

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[1] U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Infant Mortality Rates: Socioeconomic Factors, United States, DHEW Publication No. (HSM) 72-1045 (Rockville, Md.: March 1972).

Although life expectancy continues to creep upward, particularly for women, the death rate has not fallen appreciably since 1950. Many diseases have been conquered by modern medicine -- and modern public health practices --, but the U.S. health care system has been less successful in combating the debilitating effects of old age that have become a greater health problem now that people are no longer dying of typhoid or diphtheria. And changes in our lifestyle are creating new health problems: Increasing pollution, greater use of drugs and alcohol, heavier smoking, greater incidence of overweight, less exercise, greater tension and pressure are creating medical problems that can not be successfully tackled by improved medical care alone.

Advancing life expectancy is greatly increasing the percentage of the U.S. population that is over 65 years old. In 1930 only 5.4% of the total population was 65 or older; in 1973 the older segment of our population had grown to over 10%. The percentage of older people is expected to continue to increase during the 1980's and 1990's. (See Exhibit I-3 and also Supplementary Exhibit S-I-3, which shows the changing age distribution of the U.S. population from 1930 to the year 2000.)

The percentage of the population that is over 65 varies considerably from state to state, as can be seen in Supplementary Exhibit S-I-4. Variations from town to town can be even greater. As a consequence, the size and the nature of the demand for health care can differ markedly from one area to the next.

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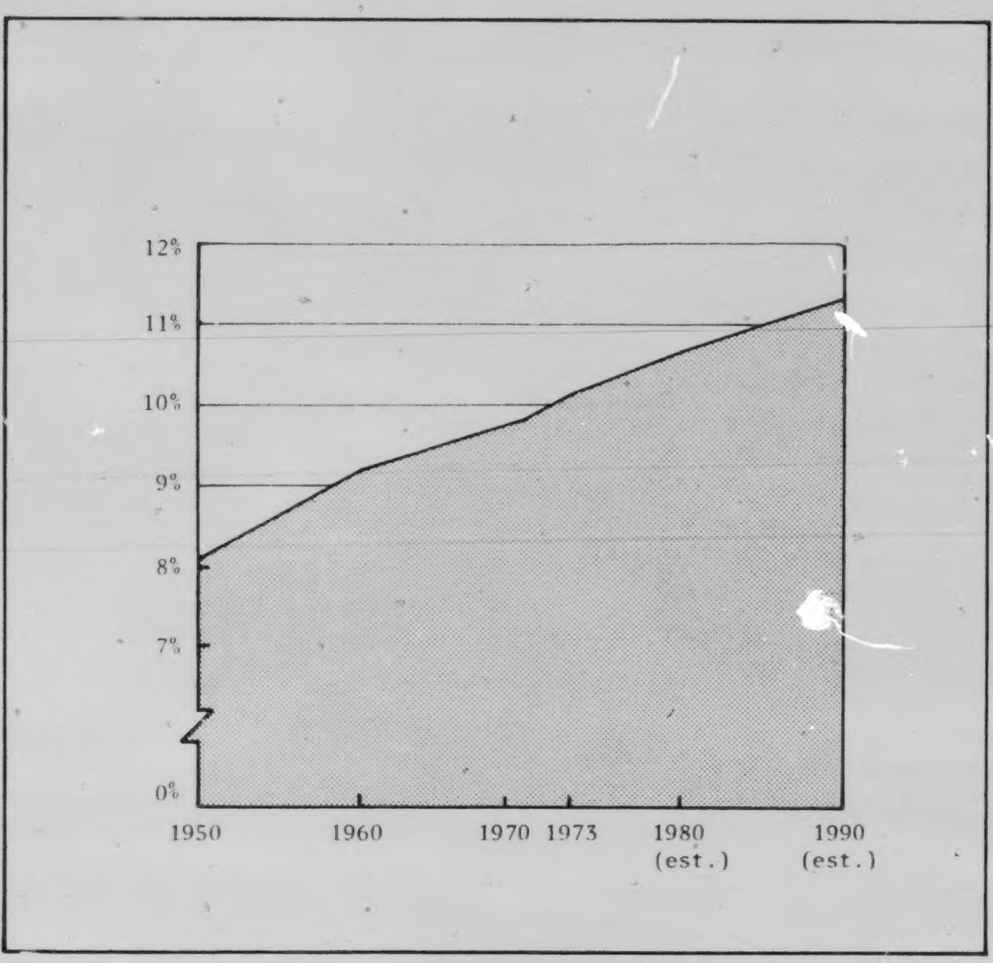
[1] U.S. Department of Commerce, Statistical Abstract...1974, op.cit., Table 81.

Exhibit I-3

PERCENTAGE OF UNITED STATES POPULATION AGED 65 AND OLDER: 1950-1990



Source: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States: 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Tables 3, 35. The 1980 and 1990 population projection is the Census Bureau's Projection under Series I-E, which assumes 2,100 births per 1,000 women upon completion of childbearing and continuation of 1960-1970 migration patterns.

The trend toward an older population, which is hitting some areas more than others, affects the demand for health care in innumerable ways:

- Older people, on a per capita basis, suffer from more health deficiencies than do younger people and therefore require more medical attention at all levels of care.
- Physician visits per person per year increase considerably with age. On the average, persons over 75 years of age visit physicians 7.4 times a year, while younger people -- for example, those between the ages of 17 and 24 -- see a physician less than 5 times a year.[1]
- Hospital admission rates are also higher for older people. In 1972, nearly 17% of the population over age 65 were hospitalized (in short-stay hospitals) at least once during the year, compared to only about 12% of those in the 17 to 24 age group.[2] Age has been determined to be one of the most important factors affecting the demand for hospital facilities, and even small changes in the age distribution of the population greatly affect hospital utilization rates. In one study,[3] age represented the third most important influence on the use of short-term general hospitals; age was surpassed in importance only by economic factors (i.e., hospital insurance status and coverage, family income, etc.) and by a variable reflecting sex and marital status. (See Exhibit I-4.)

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[1] U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Current Estimates From the Health Interview Survey, United States, 1972, DHEW Publication No. (HRA) 74-1512 (Rockville, Md.: September 1973), p. 26.

[2] Ibid., p. 21.

[3] James G. Anderson, "Demographic Factors Affecting Health Service Utilization: A Causal Model," Medical Care, March-April 1973, p. 107.

Exhibit I-4

AGE DIFFERENTIALS IN HOSPITAL UTILIZATION: 1965, 1970, 1972

Age Group	Discharges from Short-Stay Hospitals Per 1,000 Population			Average Length of Stay (in days) in a Short-Term Hospital			Days of Care in Short-Term Hospitals Per 1,000 Population
	1965	1970	1972	1965	1970	1972	1972
All Ages	153.4	146.2	154.9	7.8	8.0	7.7	1,199.9
Less than 15 years	77.0	68.0	73.7	5.3	4.9	4.5	329.5
15-44	176.5	156.1	156.0	5.9	5.8	5.7	886.8
45-64	174.0	161.7	177.2	9.8	9.6	9.3	1,642.7
65+	264.0	306.1	332.9	13.0	13.1	12.2	4,076.8

Sources: U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Utilization of Short-Stay Hospitals: Summary of Nonmedical Statistics, United States, 1965, Public Health Series Publication No. 1000-Series 13, No. 2 (Washington, D.C.: August 1967), pp. 9-10.

____________________. Utilization of Short-Stay Hospitals: Summary of Nonmedical Statistics, United States, 1970, DHEW Publication No. (HRA) 74-1765 (Rockville, Md.: August 1973), pp. 19-21.

____________________. Utilization of Short-Stay Hospitals: Summary of Nonmedical Statistics, United States, 1972, DHEW Publication No. (HRA) 75-1770 (Rockville, Md.: June 1975), p. 7.

- When hospitalized, older people tend to require a longer hospital stay than do younger patients with the same illness, thus increasing the demand for hospital beds. For example, patients over 65 years of age hospitalized for fractures stay an average of 27.5 days in short-term hospitals, while those under 17 leave after about 5.4 days. Older patients with malignant neoplasms require an average of almost 17 hospital days; those between the ages of 17 and 44 stay only about 10 days.[1] For all conditions requiring hospitalization, the average length of stay for older people is 12.6 days; for patients between 15 and 44 years of age, it is 5.7 days; and for those under 15 it is only 4.7 days.[2]

- Following hospitalization, older people are more likely to require longer rehabilitation periods and more continuing medical care than younger people. Thus, even those older people who are eventually able to return home are more likely to need a stay in some sort of nursing home or extended care facility or to require home care.

- Many older people eventually become unable to care for themselves. Since they are less likely to be able to live with younger relatives than they did in earlier times, they must often end their days in some sort of nursing home. About 55 of every 1,000 persons over 65 are residents of nursing care and related homes, and 89% of the residents of such facilities are in this older age group.[1] The growing number of elderly people, changes in disease patterns, and changes in family living arrangements will continue to increase the demand for the level of care provided by nursing homes.

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[1] U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Age Patterns in Medical Care, Illness and Disability, United States, 1968-1969, DHEW Publication No. (HSM) 72-1026 (Washington, D.C.: April 1972), p. 29.

[2] U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Utilization of Short-Stay Hospitals: Summary of Nonmedical Statistics, United States, 1972, DHEW Publication No. (HRA) 75-1768 (Washington, D.C.: August 1974), p. 27.

- Older people suffer from different kinds of maladies and therefore require different kinds of medical care than do younger people. For example, older people are more likely to suffer from "chronic conditions", that is, medical problems which persist over a prolonged period, while younger people suffer more from "acute conditions", that is, infections, injuries and the like, which usually can be cured in a relatively short time.

URBANIZATION

American society is becoming increasingly urbanized. More and more of its citizens are moving from the farms and small towns into metropolitan areas. In 1950 the percentage of the population living in urban areas was 64%; by 1970 this had increased to 73.5%.[2]

The urbanization of American society is having its impact on the health care system, too. (See Exhibit I-5.)

- Urban inhabitants are more susceptible to acute illness, particularly respiratory diseases. Presumably this is at least in part a reflection of the air pollution in our cities.
- On the other hand, fewer inhabitants of metropolitan areas have their activities limited by chronic conditions. This may possibly

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[1] U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Characteristics of Residents in Nursing and Personal Care Homes, United States, June-August 1969, DHEW Publication No. (HSM) 73-1704, (Rockville, Md.: February 1973).

[2] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 25.

Exhibit I-5

DIFFERENTIAL IN THE DEMANDS PLACED ON THE HEALTH CARE SYSTEM BY POPULATIONS IN METROPOLITAN VERSUS NON-METROPOLITAN AREAS

Residence of Population	Incidence of Acute Conditions Per 100 Persons Per Year (1972-73)	Age-Adjusted % of Population with Limitation of Activity Due to Chronic Conditions (1972)	Physician Visits Per Person Per Year (1973)	Persons Hospitalized Per 1,000 Persons Per Year (1968)
Metropolitan Areas (SMSA's)	200.8[a]	12.2%	5.2	93
Non-Metropolitan Areas:				
Non-Farm	197.0	13.5	4.6	103
Farm	161.1	13.2	3.7	88

Sources: U.S. Department of Health, Education, and Welfare, Public Health Service, Persons Hospitalized by Number of Hospital Episodes and Days in a Year, United States, 1968, DHEW Publication No. (HSM) 72-1029 (Rockville, Md.: December 1971), p. 4.

——————————. Physician Visits: Volume and Interval Since Last Visit, United States, 1971, DHEW Publication No. (HRA) 75-1524 (Rockville, Md.: March 1975), p. 5.

——————————. Acute Conditions: Incidence and Associated Disability, United States, July 1972-June 1973, DHEW Publication No. (HRA) 75-1525 (Rockville, Md.: January 1973), p. 3.

——————————. Limitation of Activity and Mobility Due to Chronic Conditions, United States, 1972, DHEW Publication No. (HRA) 75-1523 (Rockville, Md.: November 1974), p. 6.

[a] The high incidence of acute conditions in metropolitan areas in due primarily to respiratory diseases.

reflect the fact that people living in cities are more likely to be in sedentary occupations where physical problems can be less of a handicap than in manual jobs.

- People living on farms pay a visit to the doctor far less often than people living in metropolitan areas. This may in part be due to the lower incidence of acute illnesses in rural areas, but an important factor is undoubtedly the shortage of doctors in many areas outside the big cities.
- A study in New Mexico found that hospital admission rates increase as urbanization occurs in a county. Much of the increased hospital usage appears to be the result of the increased availability of hospital services to urban dwellers. However, while hospitalization is low among people living on farms, the highest rate of hospitalization nationally occurs among people living in small towns. (See Exhibit I-5.) The fact that hospital admission rates are even higher in small towns than in metropolitan areas may be due in part to the shortage of doctors in many small towns, for the New Mexico study indicated that, in areas where the physician-to-population ratio is low, inpatient hospital care is substituted for ambulatory care normally provided by physicians.[1]
- The fact that population continues to be drained from non-metropolitan areas makes it difficult to attract doctors and to maintain occupancy levels in hospitals in such areas. The high rate of hospitalization in small towns may be due in part to the fact that hospitals there may not be too crowded, and doctors may admit patients more readily than in crowded urban hospitals. As the New Mexico study found, the supply of hospital beds (in relation to the size of the population) is a major determinant of utilization in an area.

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[1] James G. Anderson, op. cit., pp. 104-120.

OCCUPATIONAL PROFILE

The occupational profile of the American people has undergone considerable change in recent years. The proportion of white-collar workers -- professional, managerial, sales and clerical -- has risen from 37.5% of employed persons in 1950 to 48.8% in 1974. On the other hand, farm workers have declined from 12.4% of employed persons in 1950 to 3.6% in 1974. The percentage of people employed as blue-collar workers (craft workers, operators and non-farm laborers) dropped almost 5 percentage points between 1950 and 1974, while service workers increased somewhat.[1]

These changes in the occupational profile of the population will affect health care institutions in two ways.

- Disease patterns will change somewhat. For example, there will be fewer industrial accidents as the proportion of the population employed in blue-collar jobs declines. On the other hand, there will be an increase in those maladies aggravated by the sedentary occupations pursued by a growing percentage of the population. For example, white-collar workers have a higher ratio of observed to expected cases of coronary heart disease than do blue-collar or agricultural workers. On the other hand, chronic conditions afflict only 3.7% of professional, technical and kindred workers but 19.0% of farmers and farm managers.[2]
- Attitudes toward health care will change. White-collar workers, particularly those employed in the professions and in managerial positions, tend to be better educated than blue-collar workers and are, therefore, more likely to be knowledgeable about, and demanding of, medical care. Thus, the growth in the size of the white-collar force will undoubtedly stimulate the demand for sophisticated medical care.

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[1] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 568.

[2] Thomas Wan, "Social Differentials in Selected Work-Limiting Chronic Conditions," Journal of Chronic Diseases, 1972, pp. 365-374.

EDUCATION

The population of the United States is becoming increasingly better educated. Only 35 years ago, the median number of school years completed was 8.6. Currently it is slightly over 12 years, for 60% of the population over age 25 has graduated from high school. The median number of school years completed is expected to continue rising as more and more people are going to college. Furthermore, those who do go to college are tending to get higher degrees. While the number of bachelor of arts degrees conferred annually rose 373% between 1940 and 1971, the number of doctorates rose 970%.[1]

As the American public becomes better educated, it becomes more knowledgeable about medical care, more demanding of good care, less in awe of the medical profession, more inclined to view the hospital care system with a critical eye, and more articulate in expressing criticism and in pressing for reform. Levels of aspiration are rising in health care as elsewhere. This pattern of change will have several consequences for the health care system.

- Better educated people generally make greater use of health services, for there is increased awareness of the value and importance of seeking prompt medical treatment.
    - Physicians are visited more often by people with a high educational level. In 1966-67, there were 3.7 physician visits per person per year in families headed by someone with less than 5 years of education; but there were 5.0 physician visits per person per year in families headed by someone with 13 years or more of education.[2]

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[1] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Tables 186 and 230.

[2] Thomas Bice, Robert Eichorn, and Peter Fox, "Socioeconomic Status and Use of Physician Services: A Reconsideration," Medical Care, May-June 1972, p. 266.

  - Not only general physician use but also use of preventive services are significantly higher for those with some education beyond high school than for others.[1]
  - Better educated women are more likely to visit a doctor during the first trimester of pregnancy.[2]
  - Education (and race) have over the years remained consistently related to the use of physician services, but studies show that relationships between income and use have diminished considerably over the past four decades.[3]

- People with a higher educational level are more likely to carry hospital insurance. Among families under age 65 headed by someone with less than eight years of education, only 56.7% of the families carried hospital insurance in 1968; but when the head of the family had 13 or more years of education, 89.5% of the families had hospital insurance.[4]
- Education about health care (good nutrition, preventive care, etc.) is usually more successful among people with high educational attainments.
- The increasing educational level of the population has stimulated the demand for technologically advanced methods of care and for higher apparent quality of care.

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[1] Stuart Schweitzer, "Incentives and the Consumption of Preventive Health Care Services," Consumer Incentives for Health Care, ed. Selma Mushkin (New York: Milbank Memorial Fund, 1974), p. 39.

[2] U.S. House of Representatives, Committee on Ways and Means, National Health Insurance Resource Book, April 11, 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), p. 268.

[3] Bice, op. cit., p. 262.

[4] U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Hospital and Surgical Insurance Coverage, United States, 1968, DHEW Publication No. (HSM) 72-1033 (Rockville, Md.: January 1972), p. 5.

- Health care institutions can expect increasing public examination and criticism of their operations and growing insistence that the public be given some voice in determining their policies. Steven Strickland's 1971 survey of a representative cross-section of the U.S. population, for example, indicated a public demand for a greater role for consumers in the administration of the health care system, especially at the local level.[1]
- Doctors will be subject to more criticism, especially about the efficacy and efficiency with which they provide medical care to the public. This is one reason for the rise in the malpractice suits in recent years.

AFFLUENCE

The population of the United States is enjoying rising affluence. Since World War II, the economy has generally flourished, enjoying a growth in the Gross National Product (GNP) of 353% between 1950 and 1973. To be sure, much of this increase was attributable to rising prices; but, even in constant 1958 dollars, the GNP increased 92% between 1950 and 1973. Because the GNP has grown more rapidly than the population, per capita disposable income has increased from $1,364 in 1950 to $4,195 in 1973, an increase of 208%. In constant 1958 dollars, the increase in per capita disposable personal income was 76%.[2]

The rise in per capita income does not, of course, mean that poverty has been eliminated in the United States. However, the percentage of persons considered to be living below the poverty level was cut in half between 1959 and 1972. While 22.4% of the United States population was classified as below the "low income level" in 1959, this percentage had dropped to 11.9% in 1972.[1]

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[1] Steven P. Strickland, U.S. Health Care: What's Wrong and What's Right. National poll commissioned by Potomac Associates (Washington, D.C.: October 1971).

[2] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Tables 600 and 604.

The growing affluence of much of the population is changing the character of the demands on the U.S. health care system.

- As incomes rise and as the percentage of the population living in poverty declines, some of the diseases associated with poverty, malnutrition, and unsanitary living conditions should diminish. The impact of poverty on health problems is dramatic.[2] (See Exhibits I-6a and I-6b.)
    - A poor child has half the chance of a more affluent child to live to his first birthday. The poor child's chances of contracting communicable diseases are far greater; for example, only half of all poor children are now immunized against polio. Poor children have five times more mental illness, seven times more visual impairment, six times more hearing defects, and three times more heart disease than their more affluent contemporaries.[3]
    - Tuberculosis, venereal disease, heart disease, hypertension, arthritis, mental disease, visual impairment, and orthopedic disability are far more common among the poor.[4]

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[1] Ibid., Table 631. The "low income level" is defined by the "poverty index" adopted by the Federal Interagency Committee in 1969 and updated each year to reflect changes in the Consumer Price Index.

[2] Of course, health problems can create poverty if they drain away a family's savings or make it difficult for wage-earners in a family to work. So poverty and the associated health problems can be a vicious circle, with each feeding on the other.

[3] "HEW's Child Health Failure," Congressional Record 120:S12574, July 16, 1974, quoted in Medical Care Review, September 1974, p. 825.

[4] Charles Greene, "Medical Care for Underprivileged Populations," New England Journal of Medicine, May 21, 1970, p. 1187. Also Mary Herman, "The Poor: Their Medical Needs and the Health Services Supplied Them," The Annals of The American Academy of Political and Social Science, January 1972, pp. 12-21.

Exhibit I-6a

IMPACT OF INCOME ON NEED FOR HEALTH CARE: 1973

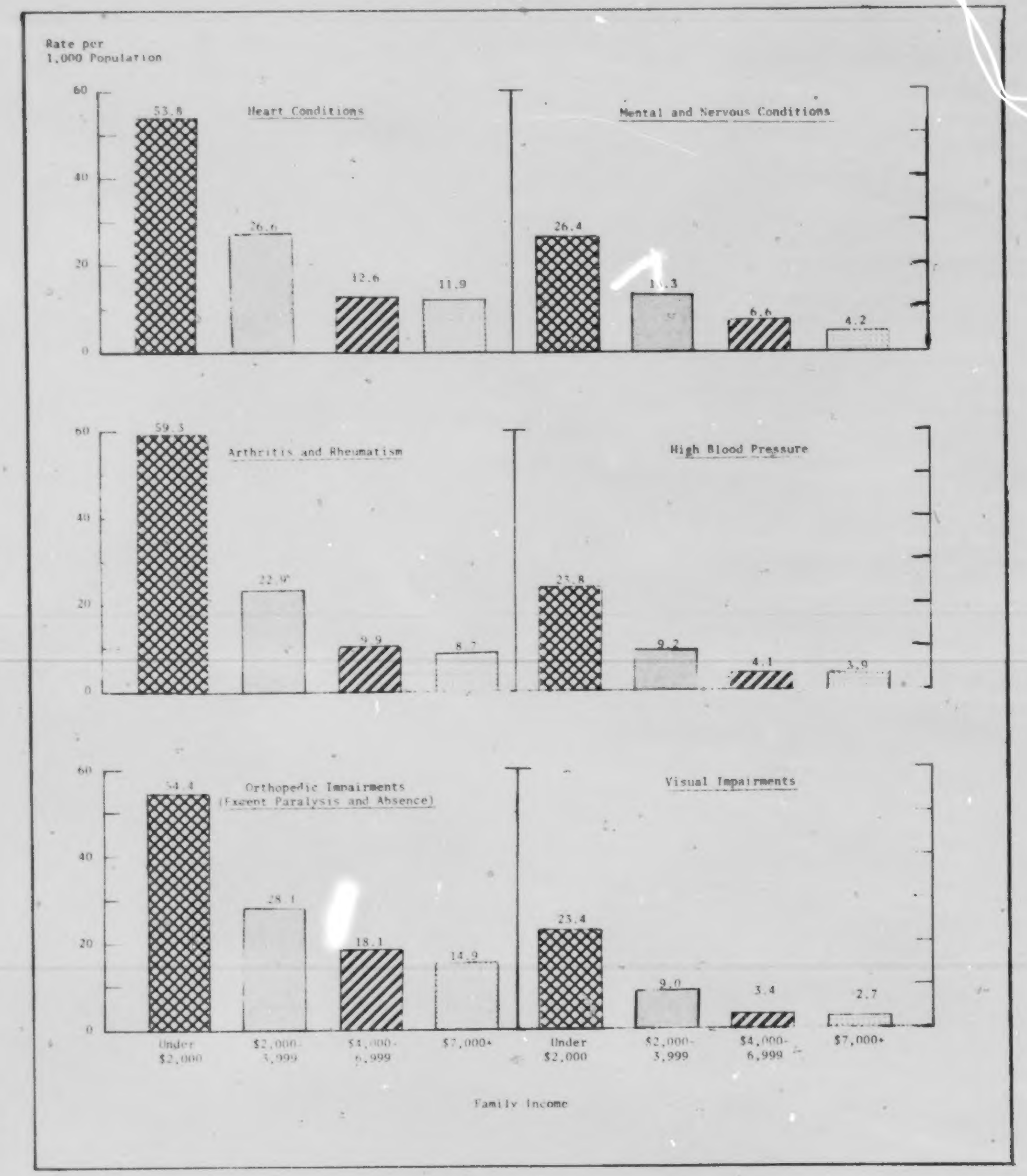
Family Income Level	% of Population with Limitation in Major Activity Due to Chronic Conditions[a]	Number of Short-stay Hospital Discharges Per 100 Persons Per Year	Average Length Of Stay (in days) for Discharges from Short-stay Hospitals
All family income levels	10.2%	13.9	8.1
Under $5,000	22.9%	19.3	9.8
$5,000 - $9,999	10.7	15.1	8.3
$10,000 and over	5.6	11.7	6.9

Source: "Profile of American Health, 1973: Based on Data Collected in the Health Interview Survey", Public Health Reports, November-December 1974, pp. 504-523.

[a] Among these chronic conditions are such things as heart conditions, high blood pressure, arthritis and rheumatism, orthopedic impairments, visual impairments and mental and nervous conditions. See Exhibit I-6b.

Exhibit I-6b

RELATIONSHIP BETWEEN FAMILY INCOME AND HEALTH PROBLEMS
CAUSING ACTIVITY LIMITATION: JULY 1962-JUNE 1963
(Rate per 1,000 population)



Source: U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Medical Care, Health Status, and Family Income, Public Health Service Publication No. 1000-Series 10, No. 9 (Washington, D.C.: May 1964), p. 60.

  - The poor are far more likely to have their activity impaired because of chronic health problems. Of those with a family income of less than $5,000 a year, 22.9% have some limitation in major activity due to a chronic condition, while only 5.6% of those with an income of $10,000 or more are so handicapped.
  - The poor are hospitalized far more often than more prosperous citizens. Among those with a family income of less than $5,000 a year, there were 19.3 discharges from a short-stay hospital per 100 persons in 1973, while the discharge rate was only 11.7 for those with incomes of $10,000 or more. The high rate of hospitalization among the poor is in part a reflection of their greater affliction with medical problems, but it is also a reflection of difficulty the poor encounter in getting preventive and ambulatory health services. One study showed, for example, that over a three year period rheumatic fever in an urban area with comprehensive medical care was about a third lower than in comparable parts of the same city without such care.[1]
  - When the poor are hospitalized, they generally require a longer stay in the hospital than those with a higher income. In 1973, the average length of stay for those with an income of less than $5,000 was 9.8 days, while the corresponding figure for those with an income of $10,000 or more was 6.9 days.

- While rising incomes may alleviate some health problems associated with poverty, affluence is creating new health hazards. As we grow more prosperous, we tend to eat too much, drink too much, and exercise too little and, in consequence, to suffer from health problems that might be classified as "affluencia consumeritis syndrome".[1] As Michael Halberstam wrote in the New York Times, "Our mortality figures reflect convincingly the fact that most Americans die of excess rather than neglect or poverty."[2] One study found that while more education is associated with relatively low death rates, high income is associated with high mortality when education and medical care are held constant.[3]

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[1] L. Gordis, "Effectiveness of Comprehensive-Care Programs Preventing Rheumatic Fever," New England Journal of Medicine, 1973, Vol. 289, pp. 331-335.

- Even though reducing the incidence of some medical problems, rising incomes stimulate demands on the health care system. The prosperous demand more and better health care than the poor. For sociological and psychological as well as financial reasons, the poor tend to seek less preventive care and less medical attention in the early stages of a disease.[4] In families with incomes of $10,000 or more, 76.5% of the children paid a visit to the doctor sometime in 1973; for families with incomes under $5,000 the percentage was only 65.6%.[5] Of those with family incomes of $10,000 or more, 59% went to the dentist sometime in 1973, whereas only 32.8% did so from families with incomes under $5,000.[6] The poor are less likely to go to a doctor or dentist despite the fact that the poor tend to have greater health problems. And higher income people not only seek more medical attention, but they also tend to demand "better" and "more personal" care and thus are less likely to use a hospital emergency room or outpatient clinic.

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[1] Anne Somers, Health Care in Transition: Directions for the Future (Chicago, Ill.: Hospital Research and Educational Trust, 1971), p. 22.

[2] Michael Halberstam, "The MD Should Not Try to Cure Society," New York Times Magazine, November 9, 1969, pp. 62ff.

[3] R. Auster, I. Leveson, and D. Sarachek, "The Production of Health, an Exploratory Study," Journal of Human Resources, Fall 1969, p. 430.

[4] As indicated earlier, a study has shown that race and educational level remain consistently related to use of physician services, while the relationship between income and use have diminished over the past four decades. Bice, op. cit., p. 262.

[5] "Profile of American Health, 1973: Based on Data Collected in the Health Interview Survey," Public Health Reports, November-December 1974, pp. 504-523.

[6] Ibid.

- Although rising incomes seem to stimulate the demand for health care, they may reduce the demand for hospital beds, for high income people generally require less hospitalization than those with low incomes. (See Exhibit I-6a.) There appear to be two reasons for this. In the first place, the poor tend to have more health problems. Secondly, poverty seems to be more of a barrier to ambulatory care than to hospital care, so the poor find it easier to get expensive hospital care than the simple care that might have made hospitalization unnecessary. If all financial barriers to health care were removed (by national health insurance, for example), the demand for ambulatory care is likely to rise more than the demand for hospital care.[1]
- From all the above, it is clear that the character of health problems and the nature of the demand for health care are affected by the socio-economic status of the population served and thus can vary considerably from one area to another. And changes in the health status of the population can be affected as much by changes in its socio-economic status as by changes in the medical care it receives. For example, deaths from tuberculosis dropped ten-fold in Britain in the century before the first effective medical measures became available, and it is assumed that this dramatic drop was due largely to improved nutrition.[2]

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[1] Joseph Newhouse, Charles Phelps, William Schwartz, Policy Options and the Impact of National Health Insurance (Santa Monica, Calif.: Rand, June 1974).

[2] Howard Hiatt, "Protecting the Medical Commons: Who is Responsible?" New England Journal of Medicine, July 31, 1975, p. 238.

REDUCING INEQUITIES IN ACCESS TO HEALTH CARE

Heavier demands are being placed on the U.S. health care system not only because of the changing character of the population, but also because of accompanying changes in our political and social values. With the growth of affluence has come a growing concern about the sizeable portion of the population still trapped in poverty.[1] "Equality of opportunity" is becoming a serious imperative, not just empty political rhetoric. A multitude of government programs have been instituted to translate this slogan into a reality, in voting rights, in education, in employment opportunities, and in access to health care.

Health care is increasingly regarded not as a privilege of the more prosperous, but as a right of all. And the government has assumed some responsibility for ensuring that right. Government monies have been poured into establishing neighborhood health centers, improving maternal and child health services, instituting programs to get doctors into underserved areas, and, above all, creating Medicaid and Medicare as a sort of government-supported health insurance for the medically indigent (Medicaid) and for the aged (Medicare). These programs will be described later in the book, but for now let us look at how effective they have been in making it easier for the poor to obtain health care.

Hospital care is clearly more readily available to the poor today than it was a decade or so ago. As can be seen in Exhibit I-7, hospitalization rates for low and high income people did not differ greatly in 1962-63 despite the fact that the poor are more likely to have health problems. By 1973, however, the poor were receiving substantially more hospital care than the more prosperous.

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[1] It is interesting to note that during the 1974-75 recession, concern for the poor has tended to be deemphasized. The talk now is of providing health insurance for the unemployed, whose ranks include many from the middle classes. Proposals for national health insurance, which would extend insurance coverage to the poor and near poor, have dropped into the background for the time being, and Medicaid benefits for the poor are being reduced in many states.

Exhibit I-7

CHANGING DIFFERENTIALS IN MEDICAL CARE RECEIVED BY DIFFERENT INCOME GROUPS: SELECTED YEARS 1957-1973

Age And Family Income[a]	Number of Physician Visits Per Year Per Person		% Seeing a Physican During Year			Discharges From Short-Stay Hospitals Per 100 Persons Per Year		% Seeing a Dentist During Year	
	July 1957 - June 1959	1973	1963	1970	1973	July 1962 - June 1963	1973	July 1957 - June 1958	1973
All Ages									
All family incomes	5.0	5.0	65%	68%	74.5%	12.4	13.9	40%	48.9%
Low income	4.6 4.6	5.7	56	65	73.8	12.5 13.2	19.3	22 31	32.8
Middle income	5.1	4.8	64	67	72.9	13.0	15.1	44	40.8
High income	5.7	5.0	71	71	76.4	11.5	11.7	58	59.0
Under 17 years[b]									
All family incomes	4.6	4.2	NA	NA	73.0%	6.5	7.0	NA	49.2%
Low income	3.0 3.7	3.8	NA	51%	65.6	4.8 6.9	9.5	13% 22	31.3
Middle income	5.0	3.8	NA	62	70.0	6.8	7.1	36	37.6
High income	5.7	4.5	NA	73	76.5	6.6	6.2	54	59.7
17-44 years[b]									
All family incomes	4.8	5.0	NA	NA	76.2%	15.5	15.6	NA	55.2%
Low income	4.0 4.5	5.9	NA	NA	78.9	16.2 17.5	19.8	30% 38	48.3%
Middle income	4.9	4.8	NA	NA	75.3	16.8	18.2	48	47.4
High income	5.5	5.1	NA	NA	76.9	13.0	13.6	59	61.1
44-64 years									
All family incomes	5.4	5.5	NA	NA	72.6%	13.9	16.6	NA	46.9%
Low income	5.1 5.4	6.5	NA	NA	71.3	12.5 13.3	22.5	18% 25	28.4
Middle income	5.4	5.6	NA	NA	70.5	15.6	17.9	33	38.1
High income	5.6	5.3	NA	NA	74.7	13.7	14.5	50	56.4
65+ years									
All family incomes	6.8	6.5	NA	NA	76.5%	17.0	23.8	NA	27.3%
Low income	6.5 6.6	6.6	NA	73%	75.7	15.2 16.5	25.0	12% 17	19.7
Middle income	6.9	6.5	NA	85	77.0	18.6	22.8	20	30.4
High income	8.7	7.1	NA	82	80.4	20.9	24.4	25	42.8

Sources: U.S. House of Representatives, Committee on Ways and Means, National Health Insurance Resource Book, April 11, 1974 (Washington, D.C.: U.S. Government Printing Office), p. 263.

U. S. Department of Health, Education, and Welfare, Public Health Service, Medical Care, Health Status and Family Income: United States, Public Health Service Publication No. 1000-Series 10, No. 9 (Washington, D.C.: May 1964).

"Profile of American Health, 1973: Based on Data Collected in the Health Interview Survey", Public Health Reports, November-December 1974, pp. 504-524.

Note: NA = Not Available.

[a] Low income = Under $2,000 and $2,000-$3,999 in 1957-59, 1957-58 and 1962-63; under $5,000 in 1973.
Middle income = $4,000-$6,999 in 1957-59, 1957-58 and 1962-63; $5,000-$9,999 in 1973.
High income = $7,000+ in 1957-59, 1957-58 and 1962-63; $10,000+ in 1973.
Income groups are not defined in 1963 and 1970.

[b] In 1957-59 and in 1962-63 two of the age groupings differed slightly from those given here; they were "under 15 years" (not "under 17 years") and "15-44 years" (not "17-44 years").

During the intervening decade the hospitalization rate had increased only marginally for those with high incomes, while it had grown dramatically for those with low incomes, rising from about 13 to 19.3 hospital discharges per 100 persons per year, an increase of nearly 50%. Among low income people, hospitalization rates increased substantially for those in every age group; among high income people, hospitalization rates increased only slightly or even declined except for those over age 65. Medicare would seem to have increased hospitalization among the elderly in all income groups, though much the biggest increase occurred among those with low incomes. The poor are receiving far more hospital care today than they did earlier, but it is not certain whether the increase has been large enough to meet the greater needs of the poor.

The poor would also appear to be getting more medical attention than they received earlier. In 1963, only 56% of those with low incomes had seen a physician during the year; by 1973 this figure had risen to nearly 74%. The percentage of those with high incomes who had seen a doctor during the year increased comparatively little during those years, and high income people actually had fewer physician visits per person per year in 1973 than they had in 1957-59. In every age group the number of physician visits per person declined for those with high incomes and rose for those with low incomes, with the biggest growth, surprisingly enough, occurring not among children or the elderly but among adults under the age of 65. Low income adults under the age of 65 actually had more physician visits per year in 1973 than did their contemporaries with high incomes. However, low income children and the aged poor even in 1973 were going to a doctor less often than those with high incomes and thus appear not to be getting as much medical attention as their greater health needs would warrant. And the fact that only 65% of low income children saw a doctor during 1973 makes one wonder if these children are getting all the inoculations and other preventive care that modern medical practice recommends.

Inadequacies in the medical care received by the poor are not due solely to the financial barriers to care encountered by the poor. In some groups there are strong ethnic or cultural biases against professional medical services. The inner city ghetto resident may face a psychological barrier when he contemplates visiting an affluent white section of the city for a medical examination. Ignorance of where care can be obtained can be a problem in our scatter-site, atomistic, fee-for-service health care system.[1] And inner city ghettos and remote rural areas are generally inadequately supplied with doctors.

The improvement in the amount of dental care available to the poor has not been nearly so great as is the case with medical care or hospital care. Between 1957-58 and 1973 the percentage of the population that had seen a dentist some time during the year rose for all age groups -- except for those in the middle income group. The increase in the percentage paying a visit to the dentist was greater for those with low incomes than for those with high incomes, but the gap between the two income groups remained substantial. Even in 1973 only 33% of those with a low income had paid a visit to the dentist during the year, while the figure for high income people was 59%. Poverty -- or even a middle level income -- would still appear to be a serious barrier to dental care. This is really not surprising since Medicare and Medicaid generally do not cover the ministrations of dentists, and even neighborhood health centers often do not make provision for dental care.

The current recession is creating pressures to economize on the various government programs to reduce inequities in access to health care. Presumably when the economy revives, these programs will again expand, and perhaps national health insurance will be instituted. Whatever government programs are initiated or expanded will certainly increase the demands on the health care system, but the nature and the size of the increase will depend on the character and the thrust of the particular programs.

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[1] Schweitzer, *op. cit.*, pp. 34-51.

TECHNOLOGY

We have been living through a technological revolution. In the home, the factory, the office, and in our health care system, new equipment and technologies have appeared which have transformed virtually every aspect of life and living. However, the diminishing funds available for research and the difficulties health care facilities are encountering in getting approval for capital expenditures may in time slow the rate of technological change in the health care system. Meanwhile, the revolution in technology, while creating "medical miracles", has also left in its wake ethical, social, political and financial problems.

RESEARCH

The pace of the technological revolution has been accelerating. For example, the average number of patents issued each year between 1956 and 1960 was 50,374, but this figure rose to 68,578 for the years between 1966 and 1970. In 1973 there were 78,618 patents issued.[1]

This transformation in technology has been stimulated by large outlays for research, financed by government, universities, foundations, and industry. For example, institutions of higher learning were the scene of $1.55 billion worth of scientific research in 1964 and of $3.62 billion in 1973.[2] Only about a third of these expenditures were financed by the universities and colleges themselves; nearly two-thirds were financed by the federal government. Of the university and college scientific research, expenditures of life science research were $795 million in 1964 and rose to $1,777 million in 1973.[2] However, these life science research expenditures rose faster in the four years between 1964 and 1968 (a 47% increase) than they did during the succeeding four years (a 36% increase).

Total federal financing of basic and applied scientific research in and out of universities also has risen over the years, but the rate of increase slowed after 1965 and in recent years has not been great enough to compensate for the erosion of inflation. Between 1960 and 1965, federal obligations for basic and applied scientific research rose from $1.9 billion to $4.8 billion, an increase of 150%. Between 1968 and 1973, however, these obligations only rose from $5.4 billion to $6.5 billion,[1] an increase of 21% -- less than the 28% increase in the consumer price index during those five years.

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[1] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 905.

[2] Ibid., Table 891. Also, Statistical Abstract...1970, Table 801.

The picture is much the same with federal obligations for research in the life sciences: These rose from $511 million in 1960 to $1,167 million in 1965, a 128% increase. In the five years between 1967 and 1972, however, these obligations only rose from $1,451 million to $1,982 million,[2] a mere 37% increase. However, this 37% increase was larger than that for federally-financed scientific research as a whole (23%) and larger than that for the consumer price index (25%) during those years.

Total health research expenditures, financed by all sources, have followed a similar pattern. They rose from $592 million in 1960 to $1,391 million in 1965, a 135% increase. In the five years between 1969 and 1974, they rose from $1,790 million to $2,684 million, an increase of only 50%,[3] and much of that 50% increase was eaten up by inflation. (The consumer price index rose 35% between 1969 and 1974.)

The above statistics indicate that health research has enjoyed better funding in recent years than scientific research generally, or even than life sciences research. However, funds for health research are no longer enjoying the rapid growth they had in the early 1960's. In time, the levelling off in the amount of money going into research could take some steam out of our accelerating rate of technological change, although thus far this seems not to have happened.

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[1] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 883.

[2] Ibid. 1973 figures are not available for federal obligations for life science research.

[3] Nancy Worthington, "National Health Expenditures, 1929-74," Social Security Bulletin, February 1975, p. 13. The figure for research expenditures does not include research expenditures of drug companies.

As will be discussed later in the book, health facilities are having increasing difficulty raising the money and/or getting approval for capital expenditures. This, too, should slow down the rate of technological change in the health care system, for health facilities may not always be able to install all the technological improvements research develops.

THE NEW MEDICAL TECHNOLOGY

Two kinds of technology are transforming the U.S. health care system. The first might be labeled "administrative technology", that is, the computers and data processing technology that can reduce the cost and increase the efficiency of health care delivery. Such technology, while transforming the non-medical world, is creeping into the health care system at a slower pace. The provision of health care tends to be fragmented in our pluralistic system, and the system-wide changes such technology often requires are difficult to institute. Also, improving administrative efficiency -- improving hospital bill collection procedures, for example -- has not been of great interest to the physicians, who have been the dominant force in U.S. health care. Only as the health care system has begun to feel the impact of externally imposed cost controls, has the voice of the cost-conscious administrators begun to be seriously heeded. And with the growing role of administrators has come the growing use of electronic equipment to schedule hospital admissions, analyze the results of laboratory tests, keep medical records, and check differences in physicians' patterns of care. Telemonitoring of patients has become a valuable aid in the hospital. Multiphasic screening is employing automated testing machines, which enable paramedical personnel to run patients through batteries of tests more quickly and at less cost than ever before.

While administrative technology has been working its way into the health care system, "clinical technology" has been revolutionizing it. Financed by generous research funds, medical discoveries have abounded, and the doctors have eagerly sought to install the sophisticated equipment required to apply these discoveries. Microscopic instruments have been developed which make it possible to perform surgery under a microscope. Pacemakers and open-heart surgery are saving the lives of those who earlier would have died because of coronary problems. Organ transplants and kidney dialysis are giving a new lease on life to others.

Such new clinical technology requires very expensive, highly specialized hospital facilities and capabilities. In addition to costly equipment -- which must be replaced at frequent intervals because of the high rate of obsolescence --, these specialized units necessitate an increase in both the size and the degree of training of the hospital staff. Thus, the new clinical technology has, on the whole, vastly increased the cost of health care delivery, while the new administrative technology has effected only limited cost savings.

Some new medical discoveries, however, are reducing health care costs. New vaccines have brought a sharp drop in the incidence of such illnesses as measles and poliomyelitis. New medicines are reducing the hospitalization and shortening the recovery time for such diseases as pneumonia and tuberculosis. New scanners which take pictures of soft tissues as well as bones may in time eliminate much exploratory surgery.[1] The risk of infection has been reduced by the introduction of many disposable items such as hypodermic needles, scalpels, and surgical gowns. Such items, though adding to the cost of supplies, reduce a hospital's labor costs.

But cost-benefit analysis is rarely made in determining which aspects of clinical technology should be given priority. Any improvement in medical techniques is considered good, and the cost of that improvement is rarely considered. "Griner compared adult patients suffering from pulmonary edema of nonsurgical causes who were admitted to the intensive care unit of a university hospital with those admitted to a general medical floor immediately before the opening of the special unit. In Griner's words, 'The most noticeable change in the overall experience of adult patients hospitalized with acute pulmonary edema...since the opening of an intensive care unit has been a marked increase in the cost of rendering care to these patients.'"[1] Other studies have cast doubt on whether coronary care units have any effect on mortality from myocardial infarction,[2] yet these expensive units are proliferating in our hospitals. The U.S. health care system has fallen rather blindly in love with sophisticated medical technology.

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[1] "An X-ray for Organs," New York Times, May 25, 1975, p. E-7.

IMPLICATIONS OF THE NEW TECHNOLOGY FOR THE HEALTH CARE SYSTEM

These multitudinous changes in techniques, equipment, and medicines have many implications for the health care system.

- The diseases to be treated by the health care system are changing. The new techniques are reducing the incidence of some diseases and shortening recovery time for patients with other maladies. Methods have been developed for alleviating or curing health problems that earlier were considered untreatable. The survival rate for victims of some illnesses is rising, and some of these changes have been dramatic. However, many whose lives are saved by the new medicine must cope with continuing health problems that necessitate extra medical care for the rest of their lives. Some of the premature babies whose lives are saved by new methods of neonatal care are left with blindness or brain damage. Diabetics kept alive by insulin face serious circulatory problems as they grow older. The infirmities of old age beset those no longer dying of pneumonia, a malady that in an earlier era was labeled "the friend of the old". In sum, the dramatic strides in medical care since World War II have on the whole increased, not diminished, the need for health care.

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[1] Howard Hiatt, "Protecting the Medical Commons: Who is Responsible?" New England Journal of Medicine, July 31, 1975, p. 237.

[2] Ibid.

- The "medical miracles" have raised expectations: People tend to expect the medical profession to provide a prompt and complete cure for every complaint. This expectation has not only increased the demand for health care; it has also made people more critical of the health care they receive. This is one factor in the rise of malpractice suits.

- The new medical technology has of itself made doctors and hospitals more susceptible to malpractice suits. Some of the new methods have limited odds of success or have a chance of creating new medical problems. Complicated techniques are susceptible to human error. Sophisticated machinery can unexpectedly fail. In the past the patient with a defective heart simply died; today his life may be saved by a pacemaker, but the doctor may have a malpractice suit on his hands if the pacemaker fails to operate properly.

- New questions about priorities and medical ethics are emerging. With a limited number of organs available for transplants, which patients should be given them? Which patients with improperly functioning kidneys should be given access to scarce and expensive dialysis equipment? How much effort should be made to save the life of a badly deformed newborn? How long should the new medical techniques be used to keep alive dying or hopelessly suffering patients? In short, with the new techniques come questions about when and for whom they should be used.

- The new techniques have also helped transform our health care system into one that emphasizes sophisticated technology and gives a lower priority to simple, basic health care. Ever larger sums are invested in radiation therapy equipment, while ghetto children continue to get contagious diseases that could have been avoided by relatively inexpensive inoculation programs. Hospitals are eager to add open heart surgery facilities, for which there is a limited need, but are less enthusiastic about expanding their outpatient clinics to meet burgeoning demands. One study found that a third of the patients discharged from a highly respected teaching hospital had inadequate follow-up care during the six months after discharge.[1] General practitioners are disappearing, while the number of specialists proliferate. Government programs have given the poor better access to expensive hospital care but have not done so much to provide them with preventive or primary care. The United States has 3.9 surgeons per 10,000 population versus 1.7 in England and Wales[2] -- and surgical procedures (usually done in hospitals) are performed twice as much here in proportion to the population[3] --; yet some segments of our population have no access at all to a doctor.

- As medical equipment and techniques become more complex, more specialization is required not only by doctors but also by nurses, medical technicians, and other health care personnel.

- Greater efforts need to be made to keep doctors and other medical personnel conversant with new developments in many fields. Already seven state medical associations and two medical specialty societies have begun requiring members to take continuing education courses or forfeit their membership. In 1971 New Mexico passed a relicensing law requiring doctors to take 120 hours of continuing medical education every three years to retain their license to practice. Since then other states have begun to pass relicensing laws.[4]

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[1] R.H. Brook, F.A. Appel, C. Avery, et al., "Effectiveness of Inpatient Follow-Up Care," New England Journal of Medicine, 1971, Vol. 285, pp. 1509-1514.

[2] Calculated from figures in McKinsey and Company, Health Care, The Growing Dilemma (New York, 1974), pp. 20 and 21.

[3] John Bunker, "Surgical Manpower: A Comparison of Operations and Surgeons in the United States and in England and Wales," New England Journal of Medicine, 1970, Vol. 282, pp. 135-144.

[4] Joann Lublin, "Do Doctors Need a Check-Up?," Wall Street Journal, February 25, 1975.

- Because much of the new equipment is very expensive to buy and use, doctors are finding themselves compelled by economics to find ways of sharing it with other doctors. The economics of the new technology will surely be one of the forces operating to encourage doctors to go into group practices of one sort or another and/or to become affiliated with hospitals that will give them access to the more complicated and costly equipment. More doctors are establishing their offices in medical buildings adjoining hospitals. This economic pressure, too, should foster the development of comprehensive health care centers, where specialized and expensive equipment can serve the needs of numbers of physicians and where patients can readily be transferred from a primary care doctor to the variety of specialists modern medicine has created.
- The fact that many new medical techniques require elaborate equipment is one reason for the great surge in the use of hospital outpatient facilities. Even patients of private doctors must go to a hospital outpatient clinic to get certain kinds of treatment or tests, such as radiation therapy or a GI series.
- The cost of the new equipment is having its impact on hospital economics. Smaller hospitals will simply be unable to afford, on their own, some of the expensive apparatus and will be compelled by cost considerations to arrange for jointly financed and used facilities or to merge in some fashion with other institutions or to focus their efforts on patients whose treatment does not involve expensive hardware and specialized personnel. Larger hospitals, in turn, may be under pressure to focus their attention on patients requiring the elaborate facilities only a larger hospital can afford. In short, hospitals may need to specialize more than they do at present. And highly sophisticated facilities may necessitate larger hospitals to realize economies of scale.
- Escalating costs may eventually push us into some kind of cost benefit analysis of our health care research and technological

development.[1] We may no longer be able to afford indiscriminant improvement in our medical technology.

DISEASE TRENDS

As the new technology has evolved and as the characteristics of our population have changed, the mix of diseases requiring treatment by our health care system has undergone considerable transformation. Some of the changes in disease patterns are due to factors outside the traditional province of the health care system.

IMPACT OF THE NEW MEDICAL TECHNOLOGY

Certain diseases are declining because of better public health programs, improved medicines, and better medical techniques. (See Exhibit 1-8.)

New vaccines have reduced the incidence of these diseases:

- Whooping cough cases dropped from 133,792 in 1945 to 3,286 in 1972. However, the number of cases in 1972 was about the same as in 1969, indicating that the inoculation of children against this disease is faltering.
- Diphtheria declined from 18,675 cases in 1945 to 152 in 1972.
- Acute poliomyelitis plummeted from 13,624 cases in 1945 to 31 cases in 1972.
- Measles cases rose from 146,013 in 1945 to 555,156 in 1955 and then, following introduction of the vaccine, dropped to 25,826 cases in 1969. Here again, however, the number of cases reported in 1972 was higher than in 1969, again indicating insufficient inoculation of children.

Better public health programs have caused a decline in other diseases:

- Malaria dropped from 62,763 cases in 1945 to 742 cases in 1972. There was, however, an upsurge in malaria cases in the late 1960's

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[1] Lewis Thomas, "The Future Impact of Science and Technology on Medicine," Vital Speeches of the Day, November 1973, p. 75.

Exhibit I-8

CASES OF SELECTED DISEASES REPORTED: 1945-1972

Disease	1945	1950	1955	1960	1965	1969	1970	1971	1972
Incidence declining:									
Pertussis (Whooping Cough)	133,792	120,718	62,786	14,809	6,799	3,285	4,249	3,036	3,287
Diphtheria	18,675	5,796	1,984	918	164	241	435	215	152
Poliomyelitis, Acute	13,624	33,300	28,985	3,190	72	20	33	21	31
Measles	146,013	319,124	555,156	441,703	261,904	25,826	47,351	75,290	32,275
Malaria	62,763	2,184	522	72	147	3,102	3,051	2,375	742
Typhoid Fever	4,211	2,484	1,704	816	454	364	346	407	398
Shigellosis (bacillary dysentery)	34,943	23,367	13,912	12,487	11,027	11,946	13,845	16,143	20,207
Tuberculosis (newly reported cases)	NA	NA	76,245	55,494	49,016	39,120	37,137	35,217	32,932
Incidence rising:									
Streptococcal Sore Throat and Scarlet Fever	185,570	64,494	147,502	315,173	395,168	450,008	433,405	NA	NA
Hepatitis	NA	2,820	31,961	41,666	33,856	54,325	65,107	69,162	63,476
Venereal Diseases (civilian cases):									
Gonorrhea	313,363	286,746	236,197	258,933	324,925	534,872	600,072	670,268	767,215
Syphilis	351,767	215,558	122,392	122,003	112,842	92,162	91,382	95,997	91,149
Other	10,261	8,187	3,913	2,811	2,015	1,778	2,152	2,101	2,251

Source: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States, 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Table 137; also the 1970 edition, Table 107.

Note: NA = Not Available.

and the beginning of the 1970's, presumably reflecting cases contracted by our forces in Vietnam and transported back to the United States.

- Typhoid fever declined from 4,211 cases in 1945 to 398 cases in 1972. Here again the decline in this disease has halted since 1970.
- Bacillary dysentery dropped from 34,943 cases in 1945 to 11,027 cases in 1965, but by 1972 the incidence of this disease has risen dramatically again to 20,207 cases.

New medicines are shortening the length of hospital stays required to cure various maladies:

- Pneumonia cases are being cured by antibiotics more rapidly and more successfully than would have been possible thirty years ago. The death rate from pneumonia declined from 32.9 per 100,000 population in 1960 (excluding pneumonia of the newborn) to 27.0 in 1972 (including pneumonia of the newborn).[1] The drop in the pneumonia death rate for people under 65 has been far greater. For example, the pneumonia death rate for males aged less than 24 dropped from 21.6 per 100,000 population in 1950 to 2.7 in 1970.[2]
- Treatment of tuberculosis with chemotherapy has caused the average daily census in non-federal hospitals for tuberculosis and other respiratory diseases to drop from 62,000 in 1950 to 6,000 in 1973.[3] The tuberculosis death rate has dropped from 22.5 per 100,000 population in 1950 to 2.2 per 100,000 in 1972.[4] In 1900 tuberculosis was the leading cause of death, with a death rate of 185 per 100,000 population.

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[1] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 86

[2] Ibid., Table 89; and U.S. Department of Health, Education, and Welfare, Office of the Assistant Secretary for Planning and Evaluation, Health, Education and Welfare Trends, 1966-67 Edition, Part 1: National Trends (Washington, D.C.: U.S. Government Printing Office), p. S-11.

[3] American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: 1974), p. 21.

[4] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 86.

- New methods of treating patients with mental illnesses have been developed. Drugs have been discovered which bring psychiatric problems sufficiently under control so that the patient no longer needs to be institutionalized. Because of a growing feeling that long-term institutionalization damages patients with mental problems, patients are increasingly being treated in short-term general hospitals, in day hospitals (from which the patient returns to his own home in the evening), in outpatient clinics, and in community mental health centers, rather than in the traditional long-term mental institution. In 1955 mental hospitals had 581 inpatients per 100,000 population; by 1971 this figure had dropped 431. In contrast, general hospitals were treating 164 mentally ill inpatients per 100,000 population in 1955, and by 1971 this number had risen to 266. An even more dramatic rise occurred in the number of patients being treated in outpatient psychiatric services: This number rose from 234 per 100,000 population in 1955 to 1,134 in 1971.[1]

Despite the new medical technology, the incidence of some diseases is rising:

- Streptococcal sore throat and scarlet fever cases rose from 185,570 in 1945 to 433,405 in 1970. (See Exhibit I-8.)
- Hepatitis rose from 2,820 cases in 1950 to 63,476 cases in 1972. (See Exhibit I-8.) The increased incidence of hepatitis is partly the result of increasing drug addiction. But in this instance new medical technology has also contributed to the spread of this disease, for blood for the transfusions used so often in modern medicine is sometimes unwittingly taken from hepatitis victims.

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[1] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 128.

- The number of diabetics, estimated to be 5-6 million in 1974, is growing by more than 6% a year. One reason for this is our indulgence in diets that tax our metabolism, for there appears to be increased susceptibility to diabetes among those middle aged and older who are obese and/or who indulge in sugar-laden diets. However, another reason for the growing number of diabetics is modern medicine's success in prolonging the lives of diabetics with insulin and other medications. However, the young victims of this disease face vascular complications that on the average shorten their lives by one-third. "Because the complications rather than the disease often appear on death certificates, statistics hide diabetes' role as 'the United States' second leading cause of death'," according to Dr. Max Ellenberg, president of the American Diabetes Association.[1]

IMPACT OF SOCIAL CHANGES AND CHANGES IN LIFESTYLE

Social problems and changing mores have stimulated the growth of certain maladies:

- Drug addiction is clearly on the rise. The number of new narcotics addicts reported to the Drug Enforcement Administration by police authorities rose from 6,012 in 1965 to 24,692 in 1972. The total number of active addicts so reported on December 31, 1972 was 95,392, of which 90,494 were on heroin and 2,941 were on methadone.[2] These numbers, of course, are simply the tip of the iceberg.

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[1] Joann Lublin, "New Hope: Cures for Diabetes Appear on the Way, Researchers Report," Wall Street Journal, November 4, 1974, p. 1.

[2] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 139.

- Alcoholism is increasingly recognized as a serious problem, and along with the increase in alcoholism has come a rise in the death rate from cirrhosis of the liver from 9.2 per 100,000 population in 1950 to 15.7 per 100,000 in 1972. The death rate from cirrhosis of the liver varies greatly from state to state, ranging from 25.0 in Nevada and 24.3 in New York to 6.9 and 6.3 in Alabama and Mississippi.[1] The consumption of alcohol also plays a role in automobile accidents, and heavy indulgence in alcohol, even among people not considered alcoholics, is increasingly thought to contribute to heart and circulatory problems and to do damage to the brain.

- Mental illness is growing. In 1955 there were 1,675,000 persons under treatment for such illnesses either in hospitals or through outpatient psychiatric services. By 1971 this figure had more than doubled to 4,038,000.[2] Some of this rise is simply attributable to the growing social acceptability of seeking psychiatric help: In the past people with problems tended to go to their friends or their ministers; today they are more likely to go a mental health clinic or a psychiatrist. But obviously life in the United States today is creating a great deal of mental stress. Divorce rates have risen dramatically. Because of great mobility, people can no longer rely on extended families for psychological support. Women's new enthusiasm for careers may be creating some psychological problems for their children (and their husbands). The changing occupational profile of the country may also be playing a role in the increase in mental illness. A study of the statistics on disability insurance benefits awarded by the Social Security Administration in 1959-62 to men less than age 65 reveals that a much higher percentage of the awards made to accountants, auditors, and professional people were for mental illness as compared to the percentages of awards for such illnesses to people in various blue-collar occupations.[1]

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[1] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Tables 86 and 87. For statistics on the varying death rates from various diseases in different parts of the country, see Supplementary Exhibit S-I-5.

[2] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 128.

- Deaths from suicide and homicide are rising. The suicide rate per 100,000 population declined from 11.4 in 1950 to 10.2 in 1955, but it has been rising steadily since then, reaching 11.7 in 1972. The suicide rate for white males between the ages of 15 to 24 shot up from 6.6 per 100,000 population in 1950 to 13.9 in 1970; the figures for "Negro and Other" males in this age group were 5.3 in 1950 and 11.3 in 1970. The suicide rate for white males rises steadily with age, but, for white males over 45, the suicide rate is lower today than it was in 1950. The suicide rate for females has risen somewhat since 1950 but has remained far below that of men. For both sexes and in every age group, the suicide rate is lower for "Negroes and Others" than it is for "Whites".[2] The homicide trend in recent years is alarming: There was a decrease in the age-adjusted rate during the 1950's and then an increase of 84% between 1964 and 1973.[3]

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[1] U.S. Department of Health, Education, and Welfare, Public Health Service Bulletin, #1531.

[2] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Tables 86 and 90.

[3] Joan Klebba, "Homicide Trends in the United States, 1900-1974," Public Health Reports, May-June 1975, p. 197.

- *The incidence of venereal diseases has reached epidemic proportions*, at least in part because of our changing sexual mores. Civilian cases of gonorrhea declined from 1945 to 1955, but since then they have more than tripled. The gonorrhea rate per 100,000 population jumped from 139.6 in 1960 to 420.1 in 1974.[1] Syphilis cases among civilians declined steadily from 1945 to 1970 and have held fairly steady since then. (See Exhibit I-8.) However, the National Center for Disease Control indicates that the rate of primary and secondary syphilis per 100,000 population rose from 7.1 in 1960 to 11.9 in 1974, and these rates reflect only cases reported to the Center.[1]

- *Heavy cigarette smoking is increasingly being indicated as a contributor to such health problems as lung cancer, heart diseases, peptic ulcers, and chronic sinusitis.*[2] It is at least partially responsible for the fact that the death rate for chronic respiratory diseases has grown faster than any other. The combined death rate from emphysema and chronic bronchitis among males rose from 12.6 per 100,000 population in 1960 to 21.4 per 100,000 in 1965.[3] In 1970 the death rate from emphysema alone was 19.1 for males of all ages and 160.0 for men 65 and older.[4]

- *Cancer*, second only to heart disease as the leading cause of death in this country, *has continued to rise steadily*. Between 1950 and 1969, the total increase in the age-adjusted death rate for cancer was 3.4%, reflecting rises in cancer-caused deaths among men but a decline in the death rate for women.[1] The cancer death rate without the age adjustment showed a more striking increase, growing from 149.2 per 100,000 population in 1960 to 166.6 in 1972.[2] Some of the rising incidence of cancer is due to the medical profession's success in preventing deaths from other diseases, which in an earlier era killed people off before they reached the cancer-prone years. Some of the increase in cancer, however, is due to our changing mode of life. Cigarette smoking, for example, certainly has increased the incidence of lung cancer and is one reason for the higher cancer death rate among men than among women. Some research indicates that our soft diet may play a role in the development of bowel cancer. Certain pollutants in the air and water, certain additives put in food, and even certain medications prescribed by doctors are thought to stimulate cancer. Some experts estimate that as much as 90% of all cancer in this country is the result of environmental factors.[3]

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[1] Figures supplied by the National Center for Disease Control in Atlanta, Ga.

[2] U.S. Department of Health, Education, and Welfare, *Health, Education, and Welfare Trends*, *op. cit.*, p. S-26.

[3] *Ibid.*, p. S-11.

[4] U.S. Department of Commerce, *Statistical Abstract...1974*, *op. cit.*, Table 89.

- The prevalence of major cardiovascular diseases in this country has grown significantly (heart diseases, high blood pressure, strokes, arteriosclerosis, etc.). In 1969, about 27 million Americans had major cardiovascular diseases,[4] whereas just three years later the estimated prevalence of these diseases was 28.4 million.[5] The growing prevalence of such problems is in part attributable to the fact that people are living longer. But it also appears to be related to our changing occupational profile, for white collar workers have a higher ratio of observed to expected cases of coronary heart disease than do blue collar or agricultural workers.[1] Our high speed, high pressure lifestyle and our rich diet may also be playing a role in the rising incidence of cardiovascular diseases.

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[1] Schmeck, op. cit.

[2] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 86.

[3] Howard Hiatt, M.D., "Protecting the Medical Commons; Who is Responsible?" New England Journal of Medicine, July 31, 1975, p. 238.

[4] American Heart Association, Heart Facts 1972 (New York: American Heart Association, 1971), p. 9.

[5] American Heart Association, Heart Facts 1975 (New York: American Heart Association, 1974), p. 2.

Despite the rising incidence of these diseases, the death rate from them is declining. The death rate from heart diseases did rise from 356.8 per 100,000 population in 1950 to 366.1 in 1969. However, if adjustments are made for the changing age distribution of the population, the age-adjusted death rate from heart disease fell 14% during those years, dropping from 307.6 in 1950 to 262.3 in 1969. "It is generally considered unlikely that changes in medical practice during the last few decades could account [for this drop]... Even the current enthusiasm for exercise and dieting seems an inadequate explanation. Those have come too recently to affect the basic process responsible for most heart disease deaths. It is generally assumed that heart disease is a slow process, so that the death trends of the 1950's and 1960's would have to have their roots in factors that began to work at least five or ten years earlier."[2] Some crucial changes in our lifestyle seem inexplicably to be lowering our heart disease death rate.

Even without age adjustment there has been a drop in the death rate for other major cardiovascular diseases, high blood pressure, strokes, and arteriosclerosis. The death rate for these diseases fell between 1950 and 1972 despite the growing size of our retirement-age-population.[3] Apparently the incidence of these diseases is growing --

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[1] Wan, op. cit.

[2] Schmeck, op. cit.

[3] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 86.

or at least, awareness of the maladies is increasing -- while the death rate is declining for reasons the experts find mysterious.

- The death rate from accidents is lower today than it was in 1950, but the rate of injuries from accidents has climbed considerably since 1966. (See Exhibit I-9.) On the surface this would seem to indicate that the medical profession is doing a better job of treating those who are injured. However, many of the changes in accident rates are due to changes in our laws and mode of living, not to changes in health care. For example, the rate of injuries occurring on the job has fallen partly because of the diminishing proportion of our population in blue-collar jobs and partly because of higher safety standards being enforced in our factories and mines. Home injury rates have risen since 1966, presumably because of the growing array and increasing complexity of apparatus found in modern homes and perhaps also because of home owners' greater enthusiasm for doing home improvement projects themselves.

The death rate from automobile accidents -- deaths per 100,000 population -- has risen steadily since 1960, but the fatality rate -- deaths per 100 million vehicle miles -- dropped from 5.7 in 1966 to 4.2 in 1973, a decrease of 26%.[1] The incidence of disabling injuries from auto accidents has shown a similar decline. Much of these decreases, however, are due, not to improved medical care, but to better road signs, better law enforcement, driver training, and the like, which have steadily driven the fatality rate down since 1934. Lap and shoulder belts, combined, are shown in tests to reduce serious and fatal injuries by 50-60%, but study after study has shown that most people fail to use seat belts. Forcing people to use seat

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[1] William Stevens, "S.N. (Since Nader), Cars are Safer, But...," New York Times, March 24, 1974, p. E-9.

Exhibit I-9

RATE OF INJURIES AND DEATH RATE FROM ACCIDENTS: SELECTED YEARS 1950-1972

A. Injuries From Accidents Per 100 Persons Per Year

Type of Accident	1959-61	1962	1964	1966	1968	1970	1972
Total[a]	25.5	27.9	28.6	23.7	24.7	28.0	31.5
Moving Motor Vehicle	1.6	1.2	2.1	2.1	1.4	1.8	2.3
While at Work	23.9	4.7	5.4	4.9	4.7	3.9	3.9
Home		12.7	13.5	9.5	11.9	10.8	11.8
Other		10.5	9.3	8.4	9.6	12.3	14.5

B. Deaths From Accidents Per 100,000 Population Per Year

Type of Accident	1950	1955	1960	1965	1970	1972
Total	60.6	56.9	52.3	55.8	56.4	54.6
Motor Vehicle Accidents	23.1	23.4	21.3	25.4	26.9	27.2
All Other Accidents	37.5	33.5	31.0	30.4	29.5	27.4

Sources: U.S. House of Representatives, Committee on Ways and Means, National Health Insurance Resource Book, April 11, 1974 (Washington, D.C.: U.S. Government Printing Office). p. 245.

U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States, 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Table 86. Also 1970 edition, Table 117.

U.S. Department of Health, Education, and Welfare, Office of the Assistant Secretary for Planning and Evaluation, Health, Education, and Welfare Trends, 1966-67 Edition: Part 1: National Trends, p. 22.

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[a] The sum of the rates for the four classes of accidents may be greater than the total because the classes are not exclusive.

belts would presumably reduce the death rate from automobile accidents; but, when the interlock system was required in cars to compel the use of seat belts, at least 40% of drivers found ways of disconnecting or evading the system.[1] The gasoline shortage and the resultant lowering of speed limits reduced the automobile accident death rate, but prospects of a renewal of the gas shortage and/or a further escalation in gas prices are causing consumers to switch to smaller cars, which, most experts believe, are less safe than large ones because there is less safety room inside a compact. When Massachusetts lowered its drinking age to 18, the accident rate for teenage drivers shot up. The automobile accident rate is a dramatic example of the impact on the health status of factors that have nothing to do with the health care system -- of factors as remote as the Arab oil embargo.

The above statistics on medical problems give some indication of how much the population's health is affected by elements outside the traditional province of the health professions. The physical environment, sanitation, diet, differences in occupations and in lifestyles, social customs, work regulations, the education provided by schools, abortion laws, FHA mortgages, television, speed limits, laws about alcohol consumption, the design of automobiles, the availability of public transportation, the condition of the economy, the Vietnam war -- a multitude of factors have an impact on the health status of either the general population or certain segments of the population.

This is illustrated dramatically in Exhibit I-10, which shows the uneven distribution around the country of certain types of cancer. Bladder cancer mortality rates, for example, are particularly high in New Jersey, where a substantial number of people are employed in the chemical and allied industries. High rates of stomach cancer are found in North Dakota, Minnesota, Wisconsin, and Upper Michigan, where there is a concentration of people with ancestors

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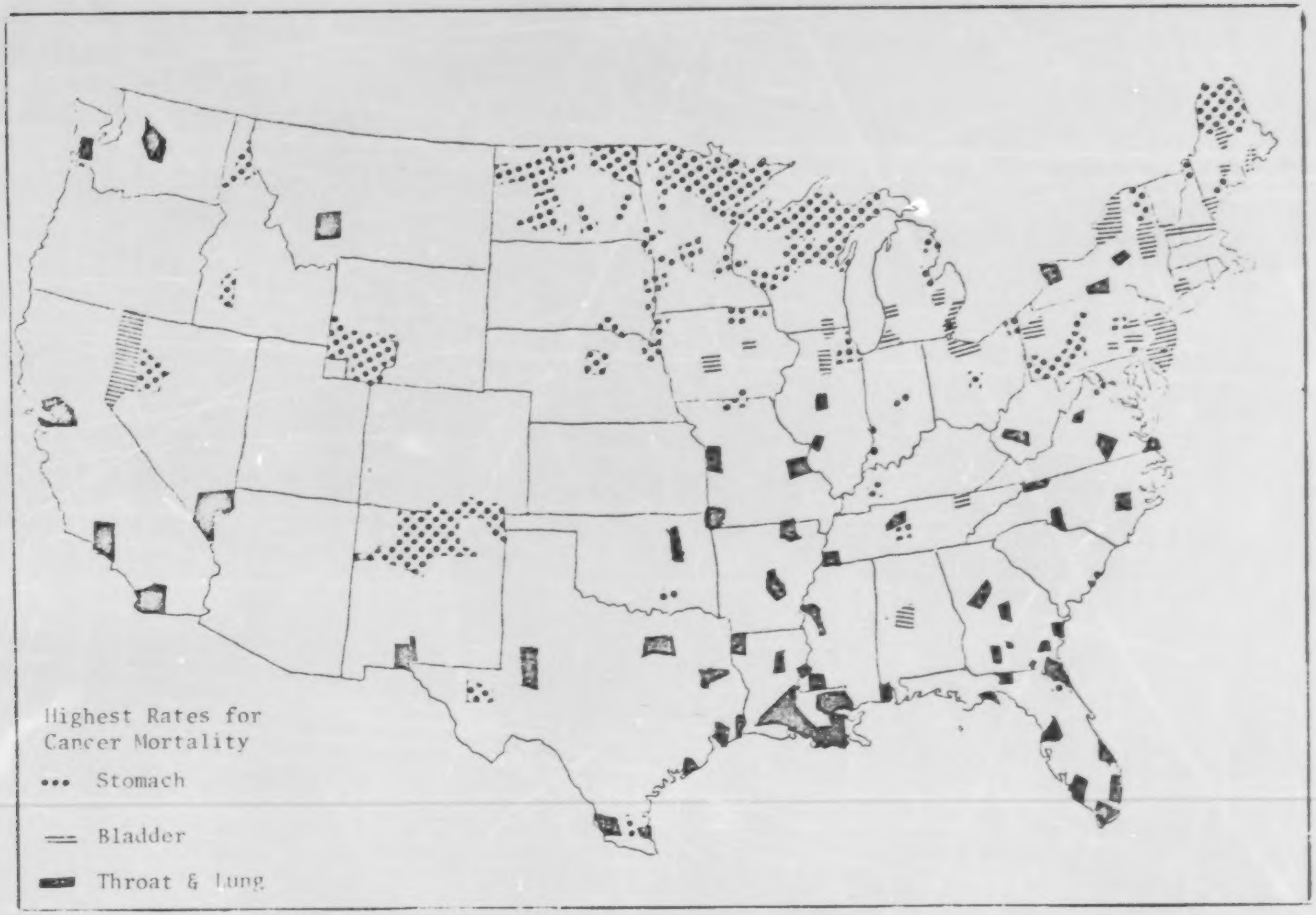
[1] Stevens, op. cit., p. E-9.

Exhibit I-10

CANCER GEOGRAPHIC PATTERN

(1950-1969 by County for White Men and Women)


Highest Rates for Cancer Mortality
••• Stomach
═ Bladder
▬ Throat & Lung

Source: U.S. Department of Health, Education, and Welfare, National Institutes of Health, Atlas of Cancer Mortality for U.S. Counties: 1950-1969, DHEW Publication No. (NIH) 75-780.

from Austria, the Soviet Union, and Scandinavia, countries with higher stomach cancer rates than the United States. Interestingly enough, excessive deaths from lung cancer are not limited to densely populated urban areas where cigarette smoking and air pollution are creating health problems. Some of the highest death rates from lung cancer occur along the Gulf of Mexico, particularly in Louisiana. Not only cancer death rates but death rates from many ills vary greatly from state to state, as can be seen in Supplementary Exhibit S-I-5. The variations in the mortality and morbidity rates bear no clear relationship to differences in the delivery of health care in various parts of the country. Not even John Lindsay ever dubbed New York "Health City" despite the unusually heavy concentration of physicians in that metropolis.[1]

Improving the health care system is not necessarily the most effective way of improving health. Sometimes a change in laws might have a more dramatic impact, though a change in the law that reduces one health problem may inadvertently create another. Regulations designed to reduce one form of pollution may cause increased emissions of other pollutants. Providing food stamps to the poor should in theory improve their diet and thus their health, but, if not coupled with education about nutrition, may simply increase the consumption of nutritionally undesirable foods such as potato chips and soft drinks.

There are also limits on what the government can legislate. A democracy cannot readily regulate people's lifestyles, to prevent them from indulging in practices deleterious to their own health. Our experience with Prohibition should make us cautious about enacting laws that run counter to the values and mores of a sizeable number of the population. Our regulations requiring the installation of seat belts have not been successful in getting people actually to use these safety devices. Behavioral scientists feel that "self-control procedures in which people change their own behavior to achieve long-range benefits are more likely to succeed [than governmental attempts] to modify behavior by simply trying to remove misused substances from the environment, as is demonstrated by the lack of success in legislating self-control by raising the price of cigarettes through taxation or by prohibiting the sale of alcoholic beverages."[1]

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[1] The Canadian Government has concluded that "There is no evidence to suggest that the standard of health care is improved when the ratio of 1 [physician] to 600-650 [population] is exceeded," a ratio greatly exceeded in places like New York City. See Marc Lalonde, A New Perspective on the Health of Canadians (Ottawa: Government of Canada, April 1974), p. 29.

Another approach to controlling the non-medical factors that affect health is the work of the Public Health Action Center to lower the nicotine content of cigarettes and to reduce other elements in the environment that appear to be harmful. The Public Health Action Center is part of the American Health Foundation, which is doing research to determine exactly which factors put people at risk of certain maladies and undertakes educational programs to warn people about these risk factors. However, educating people about health hazards is generally not too effective, as indicated by the seemingly limited impact of drug education programs in the schools. Television advertising on the dangers of cigarettes does not appear to have had any major effect on the nation's smoking habits: Domestic cigarette consumption in 1972 rose nearly 3% from the 1971 level.[2] One possible approach might be to increase health insurance premiums for those who smoke, drink heavily, etc., although this would create the problem of accurately determining people's habits. In sum, there are no easy answers to the problem of inducing people to change their lifestyles in the interest of improving their health. And lifestyles can have a greater impact on health than the health care system.[3]

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[1] Ovide Pomerleau, Frederic Bass, and Victor Crown, "Role of Behavior Modification in Preventive Medicine," New England Journal of Medicine, June 12, 1975, p. 1278.

[2] Katherine Bauer, "Averting the Self-Inflicted Nemeses (Sins) from Dangerous Driving, Smoking, and Drinking," Consumer Incentives for Health Care, Selma Mushkin, ed. (New York: Milbank Memorial Fund, 1974), p. 12.

[3] The Canadian government has become greatly concerned about the impact of lifestyles on health. See Marc Lalonde, A New Perspective on the Health of Canadians (Ottawa: Government of Canada, April 1974).

IMPACT OF THE CHANGING AGE DISTRIBUTION OF THE POPULATION

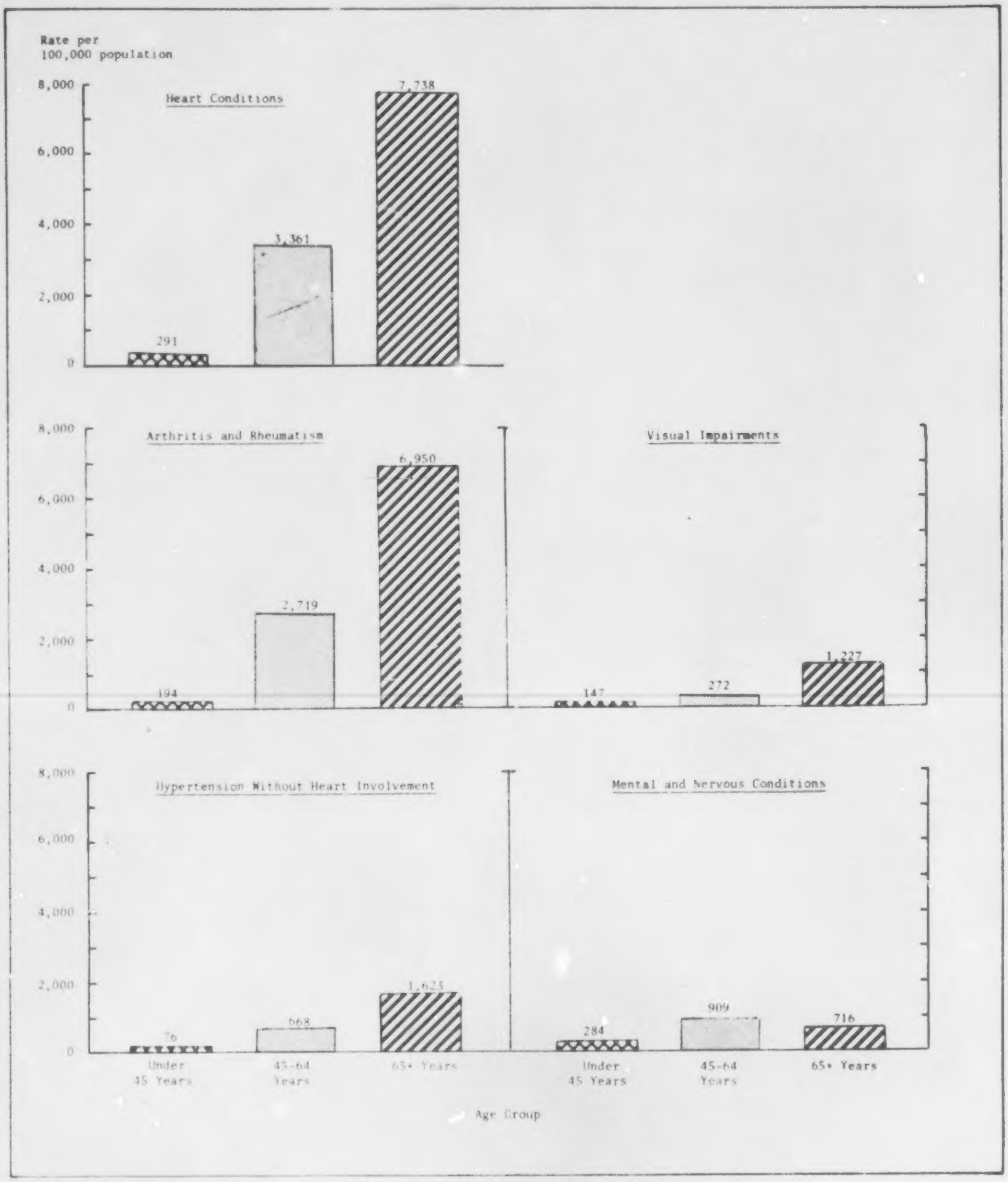
Disease patterns in this country are also being affected by the trend toward an older population. As can be seen in Exhibit I-11, the incidence of heart conditions, hypertension, arthritis and rheumatism, and visual impairment rises steeply with age. The incidence of diabetes and malignant neoplasms (cancer) also rises with age but not so sharply. On the other hand, older people are less susceptible to respiratory diseases, infective and parasitic maladies, problems with the digestive system, and injuries. (See Exhibit I-12.) Overall, older people are more likely to suffer from "chronic conditions", that is, medical problems which persist over a prolonged period, while younger people more often fall prey to "acute conditions", that is, infections and injuries, which usually can be cured in a relatively short time.

The different disease patterns of the different age groups has a marked effect on the character and the size of their demand for hospital care. Older people tend to be hospitalized for quite different maladies than young people. When the Commission on Professional and Hospital Activities studied the 50 most common diagnoses of patients discharged from hospitals, striking differences were found between patients 65 and over as compared with younger patients. (See Supplementary Exhibit S-I-6.) The rates of discharges per 10,000 patients were far higher for patients over 65 for the following diagnoses: heart diseases, cerebrovascular diseases, hypertensive diseases, cataracts, arthritis and rheumatism, prostate diseases, and diseases of the intestine and peritoneum (except appendix and hernia). On the other hand, patients under 65 had far higher discharge rates for the following diagnoses: hypertrophy of tonsils and adenoids, acute appendicitis, upper respiratory infections, diseases of the teeth and jaws, injuries, neuroses, and personality and other non-psychotic mental disorders. Younger patients, of course, also had far higher discharge rates for such things as abortions, diseases of the female genitalia, etc.

The maladies for which the elderly are hospitalized tend to be ones requiring a lengthier hospital stay than is necessary with such problems of the young as appendicitis or upper respiratory conditions. Even when the

Exhibit I-11

INCIDENCE OF SELECTED CHRONIC CONDITIONS CAUSING ACTIVITY LIMITATION BY AGE: 1972
(Rate per 100,000 population)

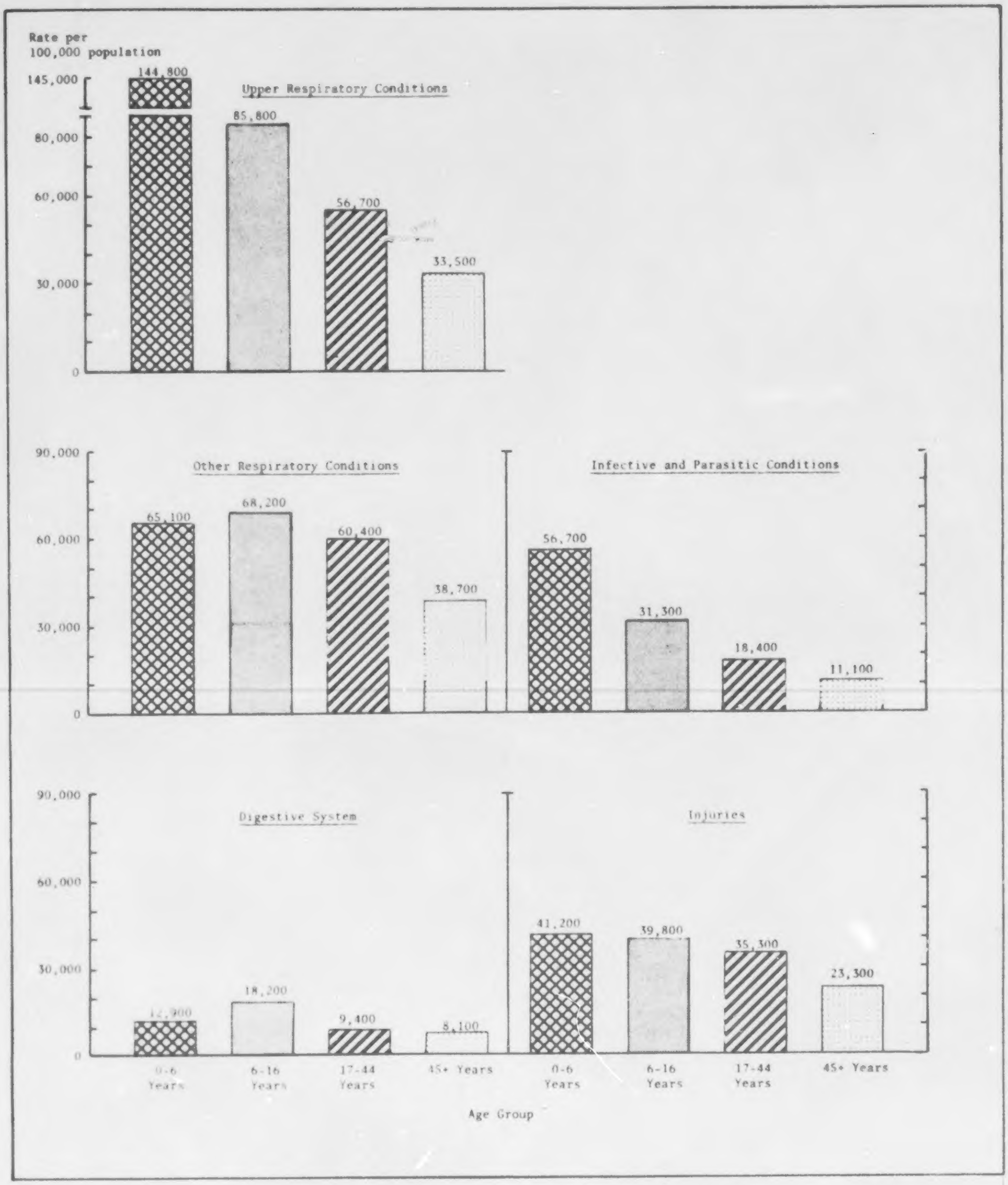


Source: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States: 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Tables 135, 3.

Exhibit I-12

INCIDENCE OF SELECTED ACUTE CONDITIONS BY AGE: 1972

(Rate per 100,000 population)



Source: U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Current Estimates from the Health Interview Survey, United States-1972, DHEW Publication No. (HRA) 74-1512 (Rockville, Md.: September 1973), p. 9.

diagnosis is the same, the elderly generally spend more days in the hospital. (See Supplementary Exhibit S-I-7.) When a person over 65 is hospitalized for an infective or parasitic disease, his average length of stay is 17.2 days, while the average length of stay for all patients with this diagnosis is 8.9 days. When an older person is hospitalized for a fracture or dislocation, his average length of stay is 27.5 days; the average length of stay for all patients with this problem is 15.7 days.

All of this means, of course, that the demand for medical care and particularly for hospital care is very much affected by the age distribution of the population in the area. An area with a large number of young families may need a sizeable obstetric unit and good facilities for treating accident victims. An area with a goodly proportion of elderly people will need more hospital beds, particularly in its coronary care unit and in its units treating cancer, strokes, and diabetes. A sophisticated analysis of the hospital beds needed in a given area requires a projection not only of the overall population size but also of the age distribution of the population and even of its socio-economic status. Some weight, too, should be given factors in the environment likely to affect the demand for hospital care, such as air pollution and the traffic accident rate.

Supplementary Exhibit S-I-1

PERCENTAGE CHANGE IN POPULATION OF THE U.S., BY STATE: 1920-1930 TO 1980-1990

State	1920-1930	1930-1940	1940-1950	1950-1960	1960-1970	1970-1980[a]	1980-1990[a]
United States	16.2	7.3	14.5	18.5	13.3	11.7	10.4
New England	10.3	3.3	10.4	12.8	12.7	11.9	10.8
Maine	3.8	6.2	7.9	6.1	2.4	2.4	2.8
New Hampshire	5.0	5.6	8.5	13.8	21.5	19.0	16.1
Vermont	2.0	-0.1	5.2	3.2	14.0	13.5	11.7
Massachusetts	10.3	1.6	8.7	9.8	10.5	10.3	9.4
Rhode Island	13.7	3.8	11.0	8.5	10.1	8.4	7.5
Connecticut	16.4	6.4	17.4	26.3	19.6	17.1	15.0
Middle Atlantic	18.0	4.9	9.5	13.3	8.9	8.2	8.0
New York	21.2	7.1	10.0	13.2	8.7	8.5	8.4
New Jersey	28.1	2.9	16.2	25.5	18.2	15.8	14.2
Pennsylvania	10.5	2.8	6.0	7.8	4.2	3.1	3.1
East North Central	17.8	5.3	14.2	19.2	11.1	11.0	10.1
Ohio	15.4	3.9	15.0	22.1	9.7	9.6	8.7
Indiana	10.5	5.8	14.8	18.5	11.4	11.3	10.2
Illinois	17.7	3.5	10.3	15.7	10.2	10.3	9.9
Michigan	32.0	8.5	21.2	22.8	13.4	13.0	11.6
Wisconsin	11.7	6.8	9.5	15.1	11.8	11.6	10.9
West North Central	6.0	1.7	4.0	9.5	6.0	6.5	6.7
Minnesota	7.4	8.9	6.8	14.5	11.5	11.6	10.8
Iowa	2.8	2.7	3.3	5.2	2.4	3.0	3.5
Missouri	6.6	4.3	4.5	9.2	8.3	8.4	8.3
North Dakota	5.3	-5.7	-3.5	2.1	-2.3	-2.9	-1.0
South Dakota	8.8	-7.2	1.5	4.3	-2.2	-1.2	0.6
Nebraska	6.3	-4.5	0.7	6.5	5.1	5.9	6.0
Kansas	6.3	-4.3	5.8	14.3	3.1	3.9	4.2
South Atlantic	12.9	12.9	18.8	22.6	18.1	13.7[b]	11.4[b]
Delaware	6.9	11.8	19.4	40.3	22.8	19.5	15.7
Maryland	12.5	11.6	28.6	32.3	26.5	21.9	17.9
D.C.	11.3	36.2	21.0	-4.8	-1.0	NA	NA
Virginia	4.9	10.6	23.9	19.5	17.2	14.0	10.1
West Virginia	18.1	10.0	5.4	-7.2	-6.2	-6.3	-4.2
North Carolina	23.9	12.7	13.7	12.2	11.5	7.9	6.7
South Carolina	3.3	9.3	11.4	12.5	8.7	5.4	4.5
Georgia	0.4	7.4	10.3	14.5	16.4	13.1	11.0
Florida	51.6	29.2	46.1	78.7	37.1	22.0	16.3
East South Central	11.2	9.0	6.5	5.0	6.3	5.0	4.9
Kentucky	8.2	8.8	3.5	3.2	5.9	4.8	5.0
Tennessee	11.9	11.4	12.9	8.4	10.0	8.5	7.6
Alabama	12.7	7.1	8.1	6.7	5.4	3.5	3.6
Mississippi	12.2	8.7	-0.2	(c)	1.8	1.3	1.9
West South Central	18.9	7.3	11.3	16.6	14.0	11.9	10.4
Arkansas	5.8	5.1	-2.0	-6.5	7.7	6.7	7.0
Louisiana	16.9	12.5	13.5	21.4	11.8	9.2	7.8
Oklahoma	18.1	-2.5	-4.4	4.3	9.9	8.9	8.7
Texas	24.9	10.1	20.2	24.2	16.9	14.4	12.1
Mountain	11.0	12.1	22.3	35.1	20.8	16.1	13.3
Montana	-2.1	4.1	5.6	14.2	2.9	3.9	5.0
Idaho	3.0	17.9	12.1	13.3	6.8	6.7	7.4
Wyoming	16.0	11.2	15.9	13.6	0.7	3.0	5.3
Colorado	10.2	8.4	18.0	32.4	25.8	19.4	15.4
New Mexico	17.5	25.6	28.1	39.6	6.8	7.1	6.6
Arizona	30.3	14.6	50.1	73.7	36.0	22.2	16.6
Utah	13.0	8.4	25.2	29.3	18.9	16.5	13.5
Nevada	17.6	21.1	45.2	78.2	71.3	37.6	24.2
Pacific	46.7	18.7	47.8	40.2	25.1	20.0	16.4
Washington	15.2	11.1	37.0	19.9	19.5	16.1	13.4
Oregon	21.8	14.2	39.6	16.3	18.2	15.8	13.5
California	65.7	21.7	53.3	48.5	27.0	21.4	17.6
Alaska	7.7	22.3	77.4	75.8	32.8	17.3	11.4
Hawaii	43.9	14.8	18.2	26.6	21.5	13.7	6.8

Source: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States: 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Tables 13 and 14.

Note: NA = Not Available.

[a] The 1980 and 1990 population projections are those of the Census Bureau under Series I-E, which assumes 2,100 births per 1,000 women upon completion of childbearing and continuation of 1960-70 migration patterns.

[b] Includes District of Columbia, not shown separately because methodology is not applicable.

[c] Less than 0.05%.

Supplementary Exhibit S-I-2

DEATH RATE AND LIFE EXPECTANCY AT BIRTH: 1920-1972

Year	Death Rate Per 1,000 Population	Life Expectancy at Birth (number of years)		
		Total	Men	Women
1920	13.0[a]	54.1	53.6	54.6
1930	11.3[a]	59.7	58.1	61.6
1940	10.8	62.9	60.8	65.2
1950	9.6	68.2	65.6	71.1
1955	9.3	69.6	66.7	72.8
1960	9.5	69.7	66.7	73.1
1965	9.4	70.2	66.8	73.7
1970	9.4	70.9	67.1	74.8
1971	9.3	71.0	67.4	74.8
1972 (prel.)	9.4	71.2	67.4	75.2

Source: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States: 1974 (Washington D.C.: U.S. Government Printing Office, 1974), Tables 9, 67 and 80.

[a] Data from birth-registration states only.

Supplementary Exhibit S-I-3

U.S. POPULATION BY AGE: 1930-2000

(000's, except percent)

Age in Years	1930		1940		1950		1960		1970		1971	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
All ages	123,203[a]	100.0%	132,165	100.0%	151,326	100.0%	179,323	100.0%	203,212[b]	100.0%	207,049	100.0%
Under 5	11,499	9.3	10,589	8.0	16,243	10.7	20,321	11.3	17,154	8.4	17,289	8.4
5-17	47,216	38.4	46,567	35.2	30,836	20.4	43,881	24.5	52,490	25.8	52,289	25.2
18-24					15,815	10.5	15,604	8.7	23,697	11.7	25,780	12.5
25-34	19,026	15.5	21,428	16.2	23,878	15.8	22,818	12.7	24,907	12.3	25,820	12.5
35-44	17,248	14.0	18,393	13.9	21,535	14.2	24,081	13.4	23,088	11.4	22,961	11.1
45-54	13,055	10.6	15,553	11.8	17,398	11.5	20,485	11.4	23,220	11.4	23,459	11.3
55-64	8,418	6.8	10,598	8.0	13,327	8.8	15,572	8.7	18,590	9.1	18,884	9.1
65-74	4,729	3.8	6,389	4.8	8,432	5.6	10,997	6.1	12,435	6.1	12,655	6.1
75 and over	1,916	1.6	2,647	2.0	3,862	2.6	5,563	3.1	7,630	3.8	7,912	3.8
Median age	26.4	-	29.0	-	30.2	-	29.5	-	28.1	-	NA	-

Age in Years	1972 (prel.)		1973 (prel.)		1980		1990		2000	
	Number	%	Number	%	Number	%	Number	%	Number	%
All ages	208,837	100.0%	210,400	100.0%	226,403[c]	100.0%	252,663[c]	100.0%	275,374[c]	100.0%
Under 5	17,242	8.3	16,700	7.9	20,140[c]	8.9	22,450[c]	8.9	21,989[c]	8.0
5-17	51,822	24.8	51,400	24.5	76,390[c]	33.7	78,779[c]	31.2	88,226[c]	32.0
18-24	26,004	12.4	26,400	12.5						
25-34	27,353	13.1	28,600	13.6	36,962	16.3	41,791	16.5	36,396[c]	13.2
35-44	22,773	10.9	22,800	10.8	25,370	11.2	36,902	14.6	41,682	15.1
45-54	23,591	11.3	23,800	11.3	22,406	9.9	24,617	9.7	35,730	13.0
55-64	19,104	9.1	19,300	9.2	21,083	9.3	20,357	8.1	22,508	8.2
65-74	12,845	6.2	13,200	6.3	14,680	6.5	16,769	6.6	16,291	5.9
75 and over	8,104	3.9	8,100	3.9	9,371	4.1	10,999	4.4	12,551	4.6
Median age	28.1	-	NA	-	29.3[c]	-	31.1[c]	-	32.5[c]	-

Source: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States: 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Tables 3, 35, and 38; also, 1973, Table 35, and 1970, Table 24.

Notes: Data for 1930 through 1970 are as of April 1. Subsequent data, including projections, are as of July 1.

NA = Not Available.

- = Not Applicable.

[a] Includes persons for whom age not reported.

[b] The official 1970 resident population count is 203,353; the difference, 23,371, is due to errors found after tabulations were completed.

[c] This figure is an average of four projections made by the Census Bureau under alternative assumptions.

Supplementary Exhibit S-I-4

PERCENTAGE OF THE U.S. POPULATION AGED 65 AND OVER, BY STATE: 1973

State	Percent 65 Years And Over
United States	10.2
New England	10.9
Maine	11.8
New Hampshire	10.6
Vermont	10.8
Massachusetts	11.2
Rhode Island	11.2
Connecticut	9.9
Middle Atlantic	10.8
New York	10.9
New Jersey	10.0
Pennsylvania	11.1
East North Central	9.7
Ohio	9.7
Indiana	9.7
Illinois	10.0
Michigan	8.7
Wisconsin	10.8
West North Central	11.9
Minnesota	10.9
Iowa	12.3
Missouri	12.3
North Dakota	10.9
South Dakota	12.1
Nebraska	12.3
Kansas	12.2
South Atlantic	10.2
Delaware	8.2
Maryland	8.0
District of Columbia	9.5
Virginia	8.3
West Virginia	11.4
North Carolina	8.6
South Carolina	7.8
Georgia	8.4
Florida	15.5
East South Central	10.3
Kentucky	10.6
Tennessee	10.0
Alabama	10.1
Mississippi	10.6
West South Central	9.8
Arkansas	12.7
Louisiana	8.7
Oklahoma	12.1
Texas	9.2
Mountain	8.5
Montana	9.8
Idaho	9.6
Wyoming	9.1
Colorado	8.2
New Mexico	7.4
Arizona	9.5
Utah	7.3
Nevada	6.9
Pacific	9.4
Washington	10.0
Oregon	11.0
California	9.4
Alaska	2.4
Hawaii	6.1

Source: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States: 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Table 37.

DEATH RATES FOR

Cause of Death	United States	New England	Middle Atlanti
Heart diseases	362.0	391.6	428.8
Malignant neoplasms (cancer)	162.8	182.1	189.2
Cerebrovascular diseases	102.0	98.7	95.4
Accidents	56.4	44.6	41.8
Influenza and pneumonia	30.9	37.8	34.2
Certain diseases of early infancy	21.3	17.8	20.2
Diabetes mellitus	18.9	20.4	21.7
Arteriosclerosis	15.6	16.3	15.6
Bronchitis, emphysema, and asthma	15.2	15.4	13.6
Cirrhosis of the liver	15.5	18.1	20.5

Source: U.S. Department of Commerce, Bureau of the Census, S
Printing Office, 1974), Table 87.

Supplementary Exhibit S-I-5

DEATH RATES FOR THE TEN LEADING CAUSES OF DEATH, BY REGION: 1970
(Rate per 100,000 population)

New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
391.6	428.8	375.7	384.3	343.8	360.0	320.8	262.7	303.8
182.1	189.2	163.5	170.5	153.9	151.2	148.8	122.4	150.0
98.7	95.4	99.9	122.2	105.2	130.4	104.4	76.4	91.9
44.6	41.8	51.2	61.6	64.1	71.9	65.3	72.5	59.2
37.8	34.2	27.3	33.7	33.4	34.1	30.3	29.0	23.3
17.8	20.2	22.1	19.0	23.7	23.8	24.8	22.1	17.6
20.4	21.7	21.0	19.9	17.9	18.8	18.1	14.8	13.3
16.3	15.6	17.5	20.9	12.8	14.3	14.4	14.3	14.1
15.4	13.6	15.0	16.6	15.1	15.0	14.1	20.5	16.1
18.1	20.5	14.3	10.3	14.7	8.8	11.0	14.6	19.8

eau of the Census, Statistical Abstract of the United States: 1974 (Washington, D.C.: U.S. Government

Supplementary Exhibit S-I-6

FIFTY LEADING DIAGNOSIS GROUPS OF LIVE DISCHARGES FROM PAS HOSPITALS: 1972

Page 1 of 3

Diagnosis Group	All Patients		Patients 65 years & over	
	Rank	Discharges per 10,000	Rank	Discharges per 10,000
Total	-	10,000.0	-	10,000.0
50 Leading Diagnosis Groups	-	6,815.3	-	6,628.5[a]
190 Signs, symptoms, and ill-defined conditions	1	422.8	4	401.9
111 Hypertrophy of tonsils and adenoids	2	387.9	(b)	1.4
091 Ischemic heart disease except acute myocardial infarction	3	306.1	1	763.9
202 Laceration, open wound, superficial injury, contusion, foreign body entering through orifice	4	228.4	21	121.5
106 Pneumonia	5	219.8	9	249.7
125 Disease of intestine and peritoneum except appendix, hernia, and anal disease	6	216.9	6	339.0
127 Cholelithiasis and cholecystitis	7	211.7	8	256.7
122 Inguinal hernia	8	200.2	15	170.3
153 Abortion	9	187.7	-	0
001 Intestinal infectious disease	10	175.5	22	112.2
093 Heart disease except rheumatic, hypertensive, and ischemic	11	165.3	3	448.0
094 Cerebrovascular disease	12	162.5	2	546.5
116 Gastric, duodenal, and gastrojejunal ulcer	13	152.3	16	170.1
134 Disease of bladder and urethra except cystitis	14	149.1	18	153.0
142 Metrorrhagia	15	136.5	-	0
175 Arthritis and rheumatism	16	135.6	12	218.2
180 Displacement of intervertebral disc	17	131.8	59	42.7
090 Acute myocardial infarction	18	124.5	10	243.6
073 Neurosis	19	123.8	44	55.9
080 Cataract	20	119.1	5	385.0
135 Disease of prostate including hyperplasia	21	115.7	7	314.3

Supplementary Exhibit S-I-6 (Cont.)

Page 2 of 3

Diagnosis Group	All Patients		Patients 65 years & over	
	Rank	Discharges per 10,000	Rank	Discharges per 10,000
144 Disease of female genitalia except infective, prolapse, and menstrual	22	114.3	100	18.6
197 Fracture of lower extremity except upper end of femur	23	111.5	30	80.2
058 Diabetes mellitus without complication; prediabetes	24	111.4	13	193.2
104 Acute upper respiratory infection except streptococcal	25	109.4	66	36.8
089 Hypertensive disease	26	108.8	14	180.2
123 Hernia of abdominal cavity except inguinal	27	108.7	19	141.6
074 Personality and other nonpsychotic mental disorder	28	107.6	75	31.0
211 Follow-up medical and surgical care	29	103.2	24	105.5
199 Sprain and strain	30	102.9	53	49.1
195 Fracture of upper extremity	31	96.8	27	91.1
131 Calculus of kidney and ureter	32	96.6	46	54.1
114 Disease of teeth and jaws	33	96.6	94	20.3
141 Uterovaginal prolapse	34	96.2	33	77.3
137 Disease of breast	35	96.1	88	26.0
200 Intracranial injury	36	94.3	84	29.0
112 Disease of upper respiratory system except acute URI and tonsils	37	92.1	79	30.7
107 Bronchitis, acute	38	91.8	35	73.8
182 Disease of muscle, tendon, and fascia	39	90.8	54	44.9
210 Special conditions and examinations without sickness	40	89.5	(b)	3.1
138 Disease of ovary, fallopian tube, and parametrium	41	87.3	(b)	2.3
102 Hemorrhoids	42	86.4	61	40.4
045 Uterine fibroma	43	85.8	(b)	6.0
174 Skin disease except infective and pilonidal cyst	44	85.6	40	62.8
117 Gastritis and duodenitis	45	85.3	42	58.7
181 Joint disease except internal derangement and intervertebral disc	46	84.4	65	36.8

Supplementary Exhibit S-I-6 (Cont.)

Page 3 of 3

Diagnosis Group	All Patients		Patients 65 years & over	
	Rank	Discharges per 10,000	Rank	Discharges per 10,000
119 Acute appendicitis without peritonitis	47	82.2	(b)	7.6
143 Other disorders of menstruation	48	80.2	96	19.6
076 Central nervous system disease except inflammatory	49	73.6	37	65.7
108 Bronchitis, chronic and unspecified	50	72.7	36	68.5

Source: Commission on Professional and Hospital Activities, Length of Stay in PAS Hospitals, United States, Regional, 1972 (Ann Arbor, Michigan: 1973).

Note: These data exclude patients transferred to other hospitals, discharged against medical advice, or staying 100 days or longer. The diagnosis groups are the Top 50 for all patients, a somewhat different list than the Top 50 for patients 65 and older.

- = Not Applicable.

[a] Total number of elderly patients in these diagnosis groups, not in the Top 50 diagnosis groups for patients 65 and older.

[b] Not included in 100 leading diagnosis groups for patients 65 and older.

Supplementary Exhibit S-I-7

PERCENT DISTRIBUTION OF DISCHARGES FROM SHORT-STAY HOSPITALS AND AVERAGE LENGTH OF STAY, BY AGE AND CONDITION FOR WHICH HOSPITALIZED: 1969

Condition for Which Hospitalized	Percent Distribution					Average Length of Stay in Days				
	All Ages	Under 17 Years	17-44 Years	45-64 Years	65+ Years	All Ages	Under 17 Years	17-44 Years	45-64 Years	65+ Years
All conditions	100.0	100.0	100.0	100.0	100.0	9.0	5.[illegible]	7.0	10.8	14.9
Infective and parasitic diseases	2.4	5.1	2.2	1.3	1.7	8.9	5.6	6.6	16.8	17.2
Malignant neoplasms	2.2	1.2	0.9	4.1	4.1	13.5	11.7	10.1	12.7	16.8
Benign and unspecified neoplasms	3.9	1.4	4.0	6.5	2.8	8.1	12.1	6.8	7.9	11.2
Diabetes mellitus	1.1	(a)	0.5	1.9	2.3	13.2	(a)	9.2	12.5	16.1
Other endocrine, nutritional, metabolic disorders	0.8	(a)	0.6	1.1	(a)	11.9	(a)	10.4	12.8	(a)
Mental and personality disorders and deficiencies	2.5	1.2	3.1	2.8	2.1	19.8	23.4	21.1	15.0	21.6
Cerebrovascular disease	0.9	(a)	(a)	1.0	3.2	22.7	(a)	(a)	16.7	22.5
Diseases of the eye and visual impairments	2.2	2.9	(a)	2.1	5.8	7.3	3.1	(a)	9.6	8.5
Other diseases of nervous system and sense organs, except paralysis	2.2	3.7	1.4	2.6	2.0	9.3	4.1	6.3	6.7	27.5
Diseases of the heart, NEC	4.8	(a)	1.1	8.2	12.8	14.2	(a)	11.3	14.5	14.7
Hypertensive disease, NEC	1.1	(a)	0.6	1.6	2.1	8.4	(a)	6.1	10.2	8.7
Varicose veins	0.5	(a)	(a)	0.9	(a)	11.0	(a)	(a)	11.7	(a)
Hemorrhoids	1.0	(a)	1.1	2.0	(a)	8.4	(a)	6.5	10.2	(a)
Other circulatory diseases	2.0	(a)	1.0	3.7	3.3	12.9	(a)	8.5	16.0	13.3
Upper respiratory conditions	5.0	20.6	2.8	1.1	(a)	2.9	2.2	3.9	4.9	(a)
Other respiratory system conditions	7.3	14.1	3.7	7.7	8.9	9.5	6.2	7.7	10.7	15.0
Ulcer of stomach and duodenum	1.9	(a)	1.8	3.8	1.3	10.6	(a)	10.2	11.2	10.6
Appendicitis, all forms	1.4	3.8	1.6	(a)	(a)	6.1	5.9	5.9	(a)	(a)
Hernia of abdominal cavity	2.5	3.1	1.9	3.1	2.3	7.2	4.4	6.9	8.0	9.7
Diseases of the gallbladder	2.1	(a)	1.9	3.9	2.2	11.4	(a)	8.8	11.9	15.7
Other digestive system conditions	4.9	3.4	4.5	5.9	6.2	9.4	4.8	8.1	10.8	12.2
Male genital disorders	1.1	(a)	(a)	1.0	4.0	15.0	(a)	(a)	11.5	18.4
Female breast and genital disorders	3.3	(a)	4.9	4.7	(a)	5.6	(a)	5.2	6.3	(a)
Other genitourinary system conditions	4.0	2.9	3.8	4.5	4.8	8.7	5.8	6.8	8.3	14.7
Deliveries	12.4	(a)	26.8	(a)	-	4.1	(a)	4.4	(a)	-
Complications of pregnancy and the puerperium	2.1	(a)	5.0	(a)	-	3.4	(a)	3.4	(a)	-
Diseases of the skin and cellular tissue, NEC	1.8	2.4	1.6	2.1	1.2	9.1	4.8	9.9	12.0	8.3
Arthritis	1.1	(a)	(a)	1.9	2.7	12.1	(a)	(a)	13.0	12.9
Conditions of bones and joints, NEC	2.1	(a)	2.5	2.0	2.5	10.9	(a)	9.2	12.1	13.7
Other conditions of musculo-skeletal system, NEC	1.6	2.2	1.2	1.6	1.8	9.2	5.5	8.5	11.3	12.1
Fractures and dislocations, current	4.6	5.5	3.6	4.9	6.0	15.7	5.4	16.8	11.9	27.5
Other current injuries	6.9	9.3	7.6	5.9	4.2	7.7	4.8	7.4	10.2	10.7
All other conditions and observations	6.3	11.8	4.4	5.5	6.6	8.1	9.6	5.4	7.1	10.9

Source: U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Age Patterns in Medical Care, Illness, and Disability, United States, 1968-1969, DHEW Publication No. (HSM) 72-1026 (Rockville, Md.: April 1972), pp. 28-29.

Note: Data are based on household interviews of the civilian, noninstitutional population.

[a] Figure does not meet standards of reliability or precision (more than 30 percent relative standard error).

- = Not Applicable.

CHAPTER II

GOVERNMENT PROGRAMS AND REGULATION

The hand of the government appears everywhere in the health care system. (See Exhibit II-1.) Government funds, government regulations and controls, government programs, government-sponsored planning are all having a growing impact on the system. But despite the protests of doctors and others in the health field about "government interference", the fact remains that all government "interference" has not effected any basic changes in the structure of the U.S. health care system. We still have a "free enterprise" system, restricted here and there by government rules, reshaped a little by government programs, but mostly grown fat with government funds. Medicare, for example, removed some of the financial barriers to health care for the aged, and it provided a tool for the government to use in regulating the health care system; but it has not changed the fee-for-service system of health care, and it has, if anything, exaggerated, not diminished, the emphasis on high technology in health care and the geographic maldistribution of doctors that existed before Medicare's introduction. It has proved financially beneficial to the doctors who protested so over its introduction, for more of the elderly can now afford to use -- and to pay for -- the expensive services of doctors and hospitals. Government programs like Medicare contributed to the boom psychology that pervaded the health care system in the late 1960's as the system grew ever bigger and more elaborately equipped -- without, until recently, any serious questions being raised about the wisdom of that growth or about restructuring of the system. The government's answer to our health care crisis has been to finance more health care, not to compel fundamental changes in the manner of delivering that care.

Exhibit II-1

FEDERAL HEALTH PROGRAMS

A. SUMMARY STATISTICS

Page 1 of 7

Program	Federal Outlays (millions of dollars)			Percentage of Total Federal Outlays for Health		Percentage Change (in 1969 dollars) 1969-1974
	1969	1974[a]				
	(1969 Dollars)	(1969 Dollars)	(1974 Dollars)	1969	1974	
Health Research	$ 1,475	$ 1,839	$ 2,400	9%	8%	+24.7%
Health Manpower Training	717	1,101	1,385	4	5	+53.5
Financing & Provision of Health Services	12,872	19,174	25,374	77	80	+48.9
Construction of Health Facilities	882	729	1,112	5	3	-17.4
Prevention and Control of Health Problems	644	830	1,129	4	3	+28.9
Improving the Organization & Delivery of Health Care	117	339	542	1	2	+241.0
Total Federal Outlays for Health	$16,707	$24,072	$31,942	100%	100%	+44.1%
Federal Health Outlays as Percent of Total Federal Outlays	9%	12%	12%	-	-	-
Federal Health Outlays as Percent of Total National Health Outlays[b]	27%	26%	26%	-	-	-

Source: Exhibit II-1, Part B.

[a] 1974 figures are estimates.

[b] The figures for both federal and national health outlays exclude health manpower training and related construction outlays.

Exhibit II-1

FEDERAL HEALTH PROGRAMS

B. DETAILED STATISTICS

(Health Research)

Program	Federal Outlays (millions of dollars)			Percentage of Total		Major Source(s) of Outlays	Description/Notes
	1969 (1969 dollars)	1974[a] (1969 dollars)	1974[b] (1974 dollars)	1969	1974		
Health Research							
Cancer	$ 173	$ 350	$ 456	12%	19%	National Cancer Institute, NIH.	National Cancer Act of 1971 provided impetus. Funds support 66 research centers. Cancer, the second cause of death in 1971.
Heart and lung	142	234	305	10	13	National Heart & Lung Institute, NIH.	Funds support 42 research centers. Cardiovascular and pulmonary diseases, the first in cause of death in 1971.
Environmental health	174	202	263	12	11	AEC, HEW, DOT, NASA, Interior, USDA, EPA.	Study of radiation exposure, water hygiene, solid waste disposal, use of pesticides & chemicals, rat control, occupational safety, air/noise pollution.
Allergy and infectious diseases	116	132	172	8	7	National Institute of Allergy & Infectious Diseases, NIH (60%).	These diseases ranked first in cause of bed-disability days in 1971.
Arthritis, metabolic and digestive diseases	115	130	169	8	7	National Institute of Arthritis, Metabolism & Digestive Diseases.	These diseases ranked first in cause of hospitalization in 1971.
Neurological	97	99	130	7	5	National Institute of Neurological Diseases & Stroke, NIH.	These diseases ranked first in cause of activity limitation in 1971.
Visual	7	24	31	-	1	National Eye Institute, NIH	
Mental health	103	116	151	7	6	Alcohol, Drug Abuse & Mental Health Administration, HEW. Special Action Office for Drug Abuse Prevention, Exec. Office of President.	These diseases ranked third in cause of hospitalization in 1971
Family planning	5	38	50	-	2	National Institute of Child Health & Human Development.	
Other	543	514	673	37	28		
	$1,475	$1,839	$2,400	100%	100%		

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[a] 1974 figures are estimates.

[b] 1974 figures are estimates. Most of these figures were supplied by the following source: Louise Russell, Blair Bourque, Daniel Bourque, Carol Burke, Federal Health Spending: 1969-74 (Washington, D.C.: National Planning Association, August 1974), pp. 8-9.

Exhibit II-1

FEDERAL HEALTH PROGRAMS

B. DETAILED STATISTICS

(Health Manpower Training)

Program	Federal Outlays (millions of dollars)			Percentage of Total		Major Source(s) of Outlays	Description/Notes
	1969 (1969 dollars)	1974[a] (1969 dollars)	1974[b] (1974 dollars)	1969	1974		
Health Manpower Training							
By type of manpower:							
Physicians	$ 170	$ 324	$ 407	24%	29%	Bureau of Health Manpower Education, Veterans Admin.	
Non-degree, non-certificate training	131	233	293	18	21		
Other health professionals	117	231	291	16	21		
Research personnel	210	147	185	29	13	National Institutes of Health	
Nurses	61	101	127	9	9	Bureau of Health Manpower Education	
Dentists	28	65	82	4	6	Bureau of Health Manpower Education	
	$ 717	$1,101	$1,385	100%	100%		
By agenc							
National Institutes of Health	$ 183	$ 129	$ 162	26%	12%	-	Underwrites training & fellowship programs for biomedical research personnel. Proposed phase-out of training grants program in 1975.
Bureau of Health Manpower Education	132	349	437	18	32	-	Provides grants to educational institutions & loans & scholarships to students. Proposed phase-out of institutional support in 1975, tie scholarships to service in underserved areas.
Alcohol, Drug Abuse & Mental Health Administration	98	83	104	14	8	-	Proposed phase-out of programs for psychiatrists, medical students, research personnel & psychiatric nurses in 1975.
Department of Defense	120	172	216	17	16	-	Designed to recruit, train & retrain medical personnel to staff military medical facilities. Bulk of outlays spent by Army to train paramedics.
Veterans Administration	77	134	168	11	12	-	Bulk of outlays to support internship & residency programs for physicians & dentists and clinical training for nurses and other health professionals.
Other	107	234	298	15	21	-	
	$ 717	$1,101	$1,385	100%	100%		

[a] 1974 figures are estimates.

[b] 1974 figures are estimates. Most of these figures were supplied by the following source: Louise Russell, Blair Bourque, Daniel Bourque, Carol Burke, Federal Health Spending: 1969-74 (Washington, D.C.: National Planning Association, August 1974).

Exhibit II-1

FEDERAL HEALTH PROGRAMS

B. DETAILED STATISTICS

(Financing and Provision of Health Services)

Program	Federal Outlays (millions of dollars)			Percentage of Total		Major Source(s) of Outlays	Description/Notes
	1969 (1969 dollars)	1974[a] (1969 dollars)	1974[b] (1974 dollars)	1969	1974		
Financing & Provision of Health Services							
Medicare	$ 6,598	$ 9,195	$12,180	51%	48%	Social Security Administration administers program	Federally financed health insurance program for persons aged 65 and over, the disabled, and persons suffering from chronic kidney disease.
Part A - Hospital Insurance	4,713	6,504	8,695	37	34		
Part B - Supplementary Medical Insurance	1,885	2,691	3,485	15	14		
Medicaid	2,285	4,405	5,827	18	23	Social & Rehabilitation Service, HEW	Federal Government & states share costs of medical services for persons on welfare and the medically indigent.
Health Services Administration (HSA) Programs							
Maternal & Child Health	179	174	224	1	1	Health Services Administration	Health services for pregnant women, infants and for children with crippling or other handicapping conditions.
Indian Health Service	48	103	136	1	1	Health Services Administration	Medical services to about 489,000 American Indians living on reservations and Alaskan natives; operates 51 hospitals, 77 health centers, 300 field stations and clinics.
Community Health, Migrant Health Centers	131[d]	166	217	1	1	Health Services Administration	Medical care to low income populations through 157 Neighborhood Health Centers. Served about 1.6 million people in 1974.
Family Planning	(c)	97	126[g]	(c)	1	Health Services Administration	Family planning services in 75% of all U.S. counties. Priority to areas with low income or high infant & maternal mortality. Served 2 million women & children in 1974.
National Health Service Corps	-	11	14	-	0	Health Services Administration	National Health Service Corps provides health services in 183 communities with shortage of medical personnel.
Public Health Service Care	63	72	95[g]	1	1	Health Services Administration	Public Health Service Patient Care provides medical services principally for active duty seamen and members of the Coast Guard.
Other HSA Programs	14	-	-	0	-		
ADAMHA Programs							
Community Mental Health Centers	51	145	192[g]	-	1	Alcohol, Drug Abuse & Mental Health Administration	Outpatient mental health services. Approximately 1.4 million persons served through 626 centers in 1974.
Alcohol Treatment and Drug Abuse Centers		100	132[g]		1	Alcohol, Drug Abuse & Mental Health Administration	Prevention, treatment and rehabilitation.
Department of Defense	1,624	1,873	2,476	13	10	Department of Defense	Medical care to military personnel & dependents, and through CHAMPUS to retired personnel & dependents of active personnel at non-military facilities.
Veterans Administration	1,394	2,043	2,714	11	11	Veterans Administration	Medical services to veterans aged 65 and over, veterans with service-connected disabilities, medically indigent veterans. Serves about 29 million veterans.
Other	465	780	1,041[g]	3	4		
	$12,872	$19,174	$25,374	100%	100%		

[a] 1974 figures are estimates.

[b] 1974 figures are estimates. Most of these figures were supplied by the following source: Louise Russell, Blair Bourque, Daniel Bourque, Carol Burke, Federal Health Spending: 1969-74 (Washington, D.C.: National Planning Association, August 1974).

[c] Family planning expenditures are included in Maternal and Child Health and in Community Health Services in 1969; the Family Planning Program was established in 1970.

[d] The 1969 figure for Community Health, Migrant Health Centers includes funds administered by the Office of Economic Opportunity for such centers.

[g] Estimated from the figures on 1974 expenditures in 1969 dollars.

Exhibit II-1

FEDERAL HEALTH PROGRAMS

B. DETAILED STATISTICS

(Construction of Health Facilities)

Program	Federal Outlays (millions of dollars)			Percentage of Total		Major Source(s) of Outlays	Description/Notes
	1969 (1969 dollars)	1974[a] (1969 dollars)	1974[b] (1974 dollars)	1969	1974		
Construction of Health Facilities							
By Type of Facility							
Health Care	$ 477	$ 344	$ 523[c]	54%	47%	Hill-Burton (36%), Other HEW (14%), VA (22%), DOD (22%)	New hospitals, hospital modernization, long-term care facilities, ambulatory care facilities. Hill-Burton monies currently directed toward modernization.
Environmental	240	195	298[c]	27	27	HUD (59%), DOC (27%), HEW (13%)	Water purification and distribution, waste treatment and sewage collection.
Education	88	138	[illegible][c]	10	19	Bureau of Health Manpower Education (HEW)	Medical, osteopathic and dental schools (72%), nursing schools (23%), other health professional schools (5%). Proposed phase-out of construction grants, rely on loan guarantees for replacement and modernization.
Research	61	52	88[c]	7	7	National Cancer Institute (63%)	
Other	16		—	2	—		
	$ 882	$ 729	$1,112	100%	100%		
By Agency Program							
Hill-Burton	$ 264	$ 125	$ 190	30%	17%	-	Health care facilities construction and modernization.
Other HEW	201	252	385	23	35	-	All types of facilities (more than half for health education facilities).
Department of Housing and Urban Development	128	118	181	15	16	-	Environmental health facilities.
Department of Commerce	115	56	86	13	8	-	Environmental health facilities.
Department of Defense	79	76	115	9	10	-	Health care facilities.
Veterans Administration	45	81	126[c]	5	11	-	Health care facilities.
Other	52	19	29[c]	6	3	-	
	$ 882	$ 72[illegible]	$1,112	100%	100%		

[a] 1974 figures are estimates.

[b] 1974 figures are estimates. Most of these figures were supplied by the following source: Louise Russell, Blair Bourque, Daniel Bourque, Carol Burke, *Federal Health Spending, 1969-74* (Washington, D.C.: National Planning Association, August 1974).

[c] Estimated from the figures on 1974 expenditures in 1969 dollars.

Exhibit II-1

FEDERAL HEALTH PROGRAMS

B. DETAILED STATISTICS

(Prevention and Control of Health Problems)

Page 6 of 7

Program	Federal Outlays (millions of dollars)			Percentage of Total		Major Source(s) of Outlays	Description/Notes
	1969 (1969 dollars)	1974[a] (1969 dollars)	1974[b] (1974 dollars)	1969	1974		
Prevention & Control of Health Problems							
Disease prevention and control (HEW, Dept. of Agriculture)	$ 241	$ 242	$ 329	37%	29%	National Center for Disease Control, HEW (34%), HSA (30%), Other HEW (19%).	Include control of nuclear materials, establishment and enforcement of occupational health and safety standards; control of foods, drugs, cosmetics and other consumer products; disease detection, prevention and other public health programs.
Consumer protection (FDA, CPSC, Dept. of Agriculture)	153	264	358	23	32	Animal and Plant Health Inspection Service, USDA (53%), FDA, HEW (39%).	
Environmental control (HEW, AEC, Dept. of Labor)[c]	82	145	198	14	17	HEW	
Overseas activities (AID)	109	113	156	17	14	AID	
Other	57	64	87	9	8		
	$ 644	$ 830	$1,129	100%	100%		

[a] 1974 figures are estimates.

[b] 1974 figures are estimates. Most of these figures were supplied by the following source: Louise Russell, Blair Bourque, Daniel Bourque, Carol Burke, Federal Health Spending: 1969-74 (Washington, D.C.: National Planning Association, August 1974).

[c] Environmental control outlays in 1974 do not include the expenditures of the Environmental Protection Agency (created in 1971), even though outlays for similar activities were included in the 1969 figure when such work was done by HEW. Outlays for environmental protection would have shown much greater growth if EPA expenditures were included in 1974.

Exhibit II-1

FEDERAL HEALTH PROGRAMS

B. DETAILED STATISTICS

(Improving the Organization & Delivery of Health Care)

Program	Federal Outlays (millions of dollars)			Percentage of Total		Major Source(s) of Outlays	Description/Notes
	1969 (1969 dollars)	1974[a] (1969 dollars)	1974[b] (1974 dollars)	1969	1974		
Improving the Organization & Delivery of Health Care							
Regional Medical Programs, HEW	$ 34	$106	$144	29%	27%	-	Funds 56 regional programs designed to coordinate health services, with particular concern for manpower utilization, delivery of emergency care, means of implementing research findings.
Health Services Research & Evaluation, HEW	33	43	58	28	11	-	Development of communication systems, evaluation and analysis of diverse aspects of health care.
National Library of Medicine, National Center for Health Statistics, HEW	23	38	51	20	10	-	Nationwide centers for health information through data collection, analysis, storage.
Comprehensive Health Planning, HEW	13	25	33	11	6	-	Supports over 200 state and local health planning agencies.
Other HEW	11	109	150	9	27	-	Largely administrative costs distributed among various programs prior to 1973.
Model Cities Program (Housing and Urban Development)	1	50	68	1	13	-	Grants to 150 cities include portions that fund health related activities.
Other	2	28	38	2	7	-	
	$117	$399	$542	100%	100%		

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[a] 1974 figures are estimates.

[b] 1974 figures are estimates. Most of these figures were supplied by the following source: Louise Russell, Blair Bourque, Daniel Bourque, Carol [illegible], Federal Health Spending: 1969-74 (Washington, D.C.: National Planning Association, August 1974).

Source: National Planning Association, Center for Health Policy Studies, Chartbook of Federal Health Spending: 1969-74 (Washington, D.C.: August 1974).

THE GOVERNMENT'S ROLE IN DISEASE PREVENTION AND HEALTH RESEARCH

Both health research and the prevention and control of health problems have been areas where government programs and government financing have grown in the last two decades, for here the government met less opposition from the medical profession than elsewhere. The government's efforts to prevent and control health problems, if ever adequately financed and administered, may in the long run have a greater effect on our health status than the government's health research, but research is what has had the greater impact on the character and focus of our health care system since World War II.

GOVERNMENT INVOLVEMENT IN THE PREVENTION AND CONTROL OF HEALTH PROBLEMS

Government at all levels has been involved in the prevention and control of health problems. Control of communicable diseases was one of the earliest concerns. State and local governments long ago set up health departments both to control the spread of communicable diseases and to ensure that schools, food handlers, water supplies, and so forth met approved health standards. In 1798 the federal government stepped into the act by authorizing what later became the Public Health Service to develop recommendations for uniform quarantine laws and regulations in the states and to carry out investigations on the cause and control of epidemic diseases. The National Center for Disease Control, established in 1946 under another name, supports agents in state and local areas who monitor the incidence and spread of communicable diseases and gives grants to state and local health agencies to finance immunization, detection and prevention services. In 1974 the emphasis was on such diseases as rubella, venereal diseases, hospital associated bacterial infections, viral hepatitis, and various arboviral diseases.

Consumer protection is also a growing concern of government, particularly the federal government. The Food and Drug Administration (FDA), created in 1927 after reformers exposed some scandals, establishes quality and safety standards for foods, drugs, cosmetics, therapeutic devices and radiological products, and these standards are enforced through an extensive monitoring and inspection system.

The food we consume is also monitored by the Animal and Plant Health Inspection Service of the U.S. Department of Agriculture, which provides grants to states for meat, poultry and egg inspections and undertakes disease and pest control programs.

The Consumer Product Safety Commission (CPSC), which became independent of the FDA in 1974, conducts investigations, processes injury reports, and disseminates information to protect consumers from hazardous products. Some state and local governments also have consumer protection agencies.

Providing protection for people on the job are two agencies: The National Institute of Occupational Safety and Health (in the U.S. Department of Health, Education, and Welfare) was established in 1971 to develop criteria for job-related health and safety standards; and the Occupational Safety and Health Administration (OSHA)(in the U.S. Department of Labor) since 1971 has actually set and enforced the standards related to job health and safety. Many states, too, have regulations designed to promote safe working conditions. OSHA was supposed to foster the development of in-plant health care facilities both to test for employment-related health problems and to provide primary care for employees and their families. In practice, however, OSHA has tended to emphasize safety rather than health, and its efforts to improve safety standards have been hampered by employer complaints about the cost of safety precautions, particularly when their profits are being eaten away by the recession.

Environmental control is a relatively new area of governmental concern. In HEW (the U.S. Department of Health, Education, and Welfare), the Bureau of Community Environmental Management conducts programs aimed at rat control and screening of children for lead-based paint poisoning. The Environmental Protection Agency, created in 1971, concerns itself with water quality, waste abatement, and air pollution control. The Atomic Energy Commission (AEC) regulates the possession and use of radioactive materials in order to protect us from dangerous exposure to radioactivity.

Prevention and control of health problems -- exclusive of the work done by the Environmental Protection Agency -- consumed only 3% of federal expenditures for health in 1974 (see Exhibit II-1), and the newspapers are filled with complaints about the inadequacies of many of these programs. But the multitude of new agencies created in recent years indicates the growing concern of the federal government with health problems that cannot be tackled directly by health care providers.

GOVERNMENT FINANCING OF HEALTH RESEARCH

Health research has been a province of the federal government for nearly a century. When the Public Health Service was created in 1878, one of its assignments was to carry out investigations on the cause and control of epidemic diseases. In 1887 the Hygienic Laboratory was created at the Marine Hospital on Staten Island to do health research. In 1930 the Hygienic Laboratory was transformed into the National Institute of Health (NIH), and in 1937 the NIH's first specialty institute was created, the National Cancer Institute.

After World War II, the federal government's role in health research grew by leaps and bounds. The political climate favored government action to improve the provision of health care, but most suggestions for government programs encountered the vigorous opposition of the medical fraternity. The doctors, however, found government support for medical research less objectionable. Research expenditures from all sources grew from $0.02 per capita in 1940 to $12.50 per capita in 1974,[1] with the public share of expenditures on health research increasing from 66% in 1950 to over 90% in 1973.[2] NIH expenditures ballooned from $256 million in 1960 to $1,643 million in 1974.[3] Some of this research was carried out at NIH, but much of it was carried out with federal grants at the nation's medical schools and hospitals.

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[1] Nancy Worthington, "National Health Expenditures, 1929-74," Social Security Bulletin, February 1975.

[2] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 99.

[3] Ibid., Table 884.

The burgeoning research programs tended to diminish interest in teaching in the medical schools and universities and tended to promote the university-affiliated hospitals at the expense of the community hospitals. Research was where the glory lay in the medical profession. Research grants helped cover some overhead and salary expenses at both hospitals and medical schools. This enabled the medical schools to expand their full-time faculties, but it was the professors and doctors who excelled at grantsmanship -- not teaching -- who won prestige and favor at their institutions.[1] The academic community placed highest priority on the study and care of the hospitalized patient and promoted an emphasis on sophisticated technology in our health care system. Outpatient care tended to be neglected, and little study was made of the delivery of health care or the prevention of diseases.[2] The type of student attracted to our medical schools tended to be research-oriented, not oriented toward patient care at the primary level. Training of residents in hospitals generally emphasized acute care, not simple, basic care. The number of biomedical researchers grew 192% between 1950 and 1970, while the number of doctors rose only 21% between 1950 and 1974.[3]

Decisions about the focus of all this health research have not been based on reasoned analysis of overall needs or careful selection of priorities. Political considerations have played a role in the choice of diseases to be emphasized. In 1974 nearly a third of federal outlays for health research went for research on cancer and heart and lung diseases, diseases particularly alarming to white middle class males. Mental illness, which ranks third in cause of days of hospitalization and fourth in cause of limitation of activity, received only 6% of these outlays. Only 7% went for research on arthritis, metabolic and digestive problems, which together are the leading cause of days of hospitalization;[1] arthritis, it should also be noted, seriously limits the activities of a far larger percentage of those with low incomes than those with higher incomes. (See Exhibit I-6b.) As the former Assistant Secretary of Health, Dr. Charles Edwards, pointed out, "Many knowledgeable people in medicine and in the research community have expressed serious reservations about, and even frank disapproval of, the massive cancer effort being carried out by the National Cancer Institute...The basic decision to mount a 'war on cancer' was political...."[2]

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[1] Cecil Sheps and Conrad Seipp, "The Medical School, Its Products, and Its Problems," *The Annals of the American Academy of Political and Social Science*, January 1972, p. 40.

[2] Julius Richmond, *Currents in American Medicine* (Cambridge, Mass.: Harvard University Press, 1969), p. 34.

[3] National Planning Association, Center for Policy Studies, *Chartbook of Federal Health Spending: 1969-1974* (Washington, D.C.: August 1974), p. 22.

Research expenditures have not grown so rapidly in recent years as they did in the early 1960's. Public outlays for research grew from 2.4% of public health expenditures in 1950 to 12.9% in 1965, but by 1973 they had fallen back to 5.5%.[3] This drop in research's share was due primarily to burgeoning expenditures for Medicare and Medicaid, not to declining outlays for research. However, public expenditures for health research, while continuing to grow, have done so at a far slower pace since 1965: They grew 161% between 1960 and 1965 but only 27% between 1968 and 1973.[4] The number of research trainees supported by NIH dropped from 19.4 thousand in 1969 to 14.6 thousand in 1973, and the Administration proposes to phase out its training grants program entirely.[5] Hospitals and medical schools are finding research grants harder to obtain. This is posing financial problems for these institutions, which have been relying on research grants to cover some of their overhead and salary expenses.

The diminishing level of public expenditures on health research may eventually change the focus of our health care system. But change is not likely to occur rapidly, for the leaders in the medical profession and the teachers serving as models for medical students came of age professionally in an era when research was king.

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[1] Ibid., p. 8.

[2] Dr. Charles Edwards, "The Federal Involvement in Health," New England Journal of Medicine, March 13, 1975, p. 560.

[3] U.S. Department of Commerce, Statistical Abstract ...1974, op. cit., Table 99; also 1970 edition, Table 78.

[4] Ibid.

[5] National Planning Association, op. cit., p. 25.

THE GOVERNMENT'S ROLE IN DETERMINING THE SUPPLY OF HEALTH MANPOWER

The role of the federal government in financing medical education has grown until, by 1974, 60% of the cost of physicians' education was being paid for by the federal government. The government is using this leverage to push medical schools into training more students to serve in primary care specialties and in underserved areas. Another tool used by the federal government to provide doctors to shortage areas is the National Health Service Corps. The competence of health professionals is supposedly ensured by licensing, currently done by the states, which are increasingly requiring not only licensing but periodic relicensing and continuing education courses for health professionals.

GOVERNMENT FINANCING OF MEDICAL EDUCATION

The states have long financed medical schools attached to their state universities. By 1970 only three states did not have a medical school.[1] In recent years some states with doctor shortages have expanded their medical schools in hopes of filling gaps in the state's supply of doctors. However, this strategy is not always successful: Doctors trained in Illinois medical schools to remedy physician shortages in the state's rural areas often end up migrating to doctor-rich California, which has felt no need to enlarge its medical schools in recent years.[2] An analysis of medical graduates by state of origin showed that four of the five states with the highest ratio of medical graduates per 100,000 population are agricultural states: Nebraska, North Dakota, Vermont, and Kansas. Yet the ratio of practicing physicians to population in three of these states puts them in the bottom half of state rankings: Kansas is ranked 28th, Nebraska 30th, and North Dakota 44th.[1]

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[1] Cecil Sheps and Conrad Seipp, "The Medical School, Its Products, and Its Problems," The Annals of the American Academy of Political and Social Science, January 1972, p. 41.

[2] Pierre de Vise, "Physician Migration from Inland to Coastal States: Antipodal Example of Illinois and California," Journal of Medical Education, February 1973, pp. 141-151.

The federal government has traditionally provided training programs for health manpower in Veterans Administration and Defense Department health facilities. In order to improve the quality of care in Veterans Administration (VA) hospitals, Congress in 1946 authorized the affiliation of these hospitals with medical schools. By 1974, 116 VA hospitals were affiliated with 91 medical schools, approximately 15,300 medical and dental students were receiving training in VA hospitals, and around 26% of the nation's residents and interns were being trained in these hospitals.[2] VA hospitals were also training dentists, nurses, psychologists, social workers, and other health professionals. The training given by VA hospitals to students in affiliated medical, dental, nursing, and pharmacy schools provides indirect financial support for these institutions.

After World War II, the federal government began to play other important roles in medical education. This began with research grants, which were an indirect means of financing the medical schools. The doctors objected to "government interference" with medical education, but they happily accepted research grants that helped pay some of the overhead and salaries at the medical schools.[3] These research grants contributed to the growth of full-time faculties at medical schools and helped increase the prestige and power of the university medical centers.[4]

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[1] *Ibid.*, p. 148.

[2] Health Policy Program, School of Medicine, University of California, San Francisco, *The Role of the Veterans Administration Medical System in the American Health Care Enterprise*, July 31, 1974, pp. 63-64.

[3] Jerome Brazda, "Medical Education: How Many Doctors are Enough?", *Modern Health Care*, July 1974, p. 16e.

[4] Richmond, *op. cit.*, p. 46.

In 1956 the federal government moved further into direct financing of medical education when funds were authorized for traineeships for professional public health personnel and for advanced training of professional nurses. In 1958 formula grants were authorized for schools of public health.

In 1963 the federal government began to make institutional grants to a broad range of teaching facilities for health professions. These grants grew to include grants for construction, improvement, and special projects and were in time extended to teaching facilities for physicians, dentists, pharmacists, podiatrists, nurses, allied health professions, and veterinarians as well as schools of public health. These institutional grants were contingent upon increased first year enrollments and were designed to remedy what was considered to be a serious shortage of trained health professionals in this country.

In 1971 the previous institutional grants were replaced by a new system of capitation grants for each student enrolled in health professional schools, again contingent upon increased first-year enrollment. Start-up assistance to new schools of medicine, osteopathy, and dentistry and new nurse training programs was authorized, also in the form of capitation grants. By 1974 federal programs had helped to build 21 medical schools, nine dental schools, and one school of osteopathic medicine.[1] Medical schools increased their entering class size from 8,759 in 1965 to 14,763 in 1974, a 68% increase.[2]

To help the growing number of health professional trainees finance their education, funds for student loans and scholarships were made available beginning in 1963. The Comprehensive Health Manpower Training Act of 1971 broadened the student loan provisions to provide up to 85% cancellation for health professionals practicing for three years in shortage areas. Another 1971 act provided that nurses could also get up to 85% of their loans cancelled after five years of full-time nursing. Scholarships for needy students were increased, and the total amounts available to an institution for scholarship funds were to be increased according to the numbers of students enrolled from low income backgrounds. A new physician shortage area scholarship program was created for medical students who agreed to practice primary care in a doctor-short area or in an area with substantial numbers of migratory agricultural workers.[1]

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[1] Brazda, op. cit., p. 16e.

[2] American Medical Association, Socioeconomic Issues of Health (Chicago, Ill.: 1974), p. 186; and data supplied on the phone by the American Association of Medical Colleges, July 1975.

The provisions for loan forgiveness as an incentive to practice in areas with a shortage of health professionals have not yet had any significant impact on our health care system. Indeed, the geographic maldistribution of doctors has grown worse: In 1963 there were 98 counties without any active physicians, but by 1971 this figure had grown to 133.[2] For this reason, Senator Kennedy in 1974 proposed a law with stronger provisions for getting doctors to shortage areas. Kennedy's bill would have mandated a period of service for all health professions students in areas designated by the government. The Senate deleted this provision but did pass a bill that would have extended student loans of up to $4,000 annually to students who agreed to serve in shortage areas or institutions. Loan forgiveness, which would be at a rate of 25% for each year of service in a shortage area, would be granted only to those doctors practicing family medicine, general pediatrics, or internal medicine.

The Senate's 1974 bill would have extended capitation grants to medical schools only if 25% of the students accepted for admission agreed to volunteer to practice for two years in an underserved area or institution as practitioners of family medicine, general practitioners, or internal medicine. Capitation grants to medical schools would gradually decrease from the present $2,500 a year to $2,200 unless the institution demonstrated that no less than 50% of its graduates were serving residencies in family medicine, general pediatrics, or internal medicine. The House failed to pass this bill before the end of the Congressional session, so the bill has never become law. However, similar bills were introduced in 1975, including one requiring as a condition for capitation grants that the school obtain agreements from students to repay the government for capitation unless they serve in a medically indigent area upon completion of training.[1] It is uncertain what form the new health manpower legislation will take in the end, but the government is clearly pushing for increased incentives for health professionals to practice in shortage areas and in understaffed specialties, and the Department of Health, Education, and Welfare (HEW) has repeatedly announced its determination to reduce capitation grants to medical schools.[2]

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[1] Florence Wilson and Duncan Neuhauser, Health Services in the United States (Cambridge, Mass.: Ballinger, 1974), p. 164.

[2] Barry Stimmel, "The Congress and Health Manpower: A Legislative Morass," New England Journal of Medicine, July 10, 1975, p. 70. For additional statistics on the geographic maldistribution of doctors, see Chapter IV.

HEW feels that federal support of health education institutions should be reduced for two reasons: The training capacity of health professional schools has been expanded sufficiently to meet future needs; and health careers are good personal investments, which should not require federal subsidies at past levels to attract qualified students.[3]

HEW's determination to reduce capitation grants could put the medical schools in a serious financial bind, for they are already feeling pinched by the reduced level of health research grants. Medical schools have grown increasingly dependent on federal funding: In 1947 state and local governments and philanthropy supplied 43% of the operating budgets of the nation's medical schools; by 1968 these sources supplied only 18% of operating costs, while the federal government was paying 40%, mostly in the form of research subsidies.[1] By 1974 the federal government's contribution to the financing of physician education had grown to 60% of the total.[2]

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[1] Stimmel, op. cit., p. 70.

[2] See, for example, John Iglehart, "Downs, Ups of Medical Education," Modern Health Care, July 1974, p. 79.

[3] National Planning Association, op. cit., p. 21.

Controlling the purse strings to such an extent, the federal government is in a position to influence the future direction of medical education and to push it into greater emphasis on the development of primary care physicians. The government has already played a role in increasing minority enrollment in medical schools from 5% in 1969-70 to 9.2% in 1973-74.[3] However, in pressing for greater emphasis on training for primary care, the government is moving against the current in the medical profession and is likely to encounter resistance. For example, a number of family practice residencies have been established in recent years, but so few medical graduates have been attracted to these residencies that 27% of the positions remained unfilled as of September 1973.[4] When the government lavished funds on health research, the results were dramatic because the government and the medical profession were pushing in the same direction. Now, however, the government is trying to promote primary care while the medical profession still tends to be oriented toward specialized care and research.

NATIONAL HEALTH SERVICE CORPS

In addition to loan forgiveness provisions to encourage doctors and other health professionals to practice in underserved areas, Congress created a National Health Service Corps in 1970 to supply medical personnel to doctor-short areas. National Health Service Corps members, mostly recent medical school graduates, serve two years as general practitioners in isolated, government-assigned areas at salaries of $17,000-$18,000 a year; in addition, many are eligible for special bonuses of $12,500. The federal government pays these salaries, but the local communities are required to provide offices for the doctors and to pay all operating expenses except the salaries. Most of this local money, however, comes from the physicians' charges, which usually are roughly comparable to other doctors' fees in the area.[1]

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[1] Health Policy Advisory Center, "Medical School Sweepstakes," Health/PAC Bulletin, October 1972, p. 2.

[2] Edwards, op. cit., p. 560.

[3] Anne Crowley, ed., "Medical Education in the United States 1973-1974," Journal of the American Medical Association, Supplement January 1975, pp. 18-19.

[4] Ibid., p. 40.

By 1974 the Corps was providing health services in 183 communities with a shortage of medical personnel.[2] The hope is that some Corps personnel will remain in these underserved communities after their two-year stint is up. The retention rate among the first batch of recruits was only 3%, but by 1974 about 20% were staying on after their two years. One reason for the higher retention rate is the recruitment of more highly trained doctors who have completed their hospital residencies and thus are fully prepared to embark on their careers. One problem, however, is that a team of two doctors must take in $140,000 a year in fees for each to earn a net income of $30,000, the minimum most physicians in private practice will accept these days.[3] That total is hard to obtain in many underserved communities since health insurance coverage tends to be less in the rural and urban ghetto areas where more doctors are needed. Of course, if national health insurance is ever instituted -- and if it covers primary care --, doctors in these areas may be able to earn reasonable fees, and private practice may become feasible there without continuing government subsidies.

LICENSING OF HEALTH PROFESSIONALS

Many types of health professionals are licensed by the states. All states require the licensing of doctors, dentists, dental hygienists, optometrists, pharmacists, podiatrists, registered nurses, practical nurses, veterinarians, and professional engineers in the health field. Chiropractors and physical therapists are licensed in all but two states.

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[1] Jonathan Spivak, "Federal Project Eases Rural Doctor Shortage By Dispatching New Medical School Graduates," Wall Street Journal, November 19, 1974, p. 48.

[2] National Planning Association, op. cit., p. 37.

[3] Spivak, op. cit.

Professional groups play a major role in regulating both the members of their professions and hospital activity within their specialty. Regulations derived from professional groups deal not only with certification of personnel and accreditation of training programs but also with hospital procedures to be followed in their specialty, quality control requirements, and the like.

Licensing, in theory, protects consumers by ensuring that health professionals are properly qualified. It also, however, protects health professionals from competition that might save consumers money. "It isn't uncommon for [licensing] boards to try to limit access to a given occupation in apparent disregard of the public interest. In Arkansas, discount drugstore operators say the pharmacy board's regulations subtly discriminate against discount drugstores, making it difficult for them to operate competitively."[1] In Georgia the state optometry board was revoking licenses of optometrists who practiced in department stores and chain optical stores until the Supreme Court ruled against this practice. For many years doctors in pre-paid group practices were often excluded from state or county medical societies and thus were unable to gain access to hospitals. The Supreme Court ruled against this discriminatory treatment in 1943, but pre-paid group practices were still facing harassment from individual medical societies as late as 1959.[2] A VISTA physician who in 1969-70 helped organize a community-controlled clinic to supplement the services of the only four doctors in an impoverished Arkansas county was refused membership in the county medical society.[1] As one observer has commented, medical societies can "be viewed as coalitions of monopolists whose purposes in coming together include protection and strengthening of their individual market power."[2]

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[1] Jim Montgomery, "Far-Reaching Reform of Licensing Boards Urged in Many States," Wall Street Journal, January 8, 1975, p. 1.

[2] "The Two Barriers to HMO Success: The Doctors and The Patients," Modern Health Care, May 1974, pp. 49-50.

States which are particularly attractive to doctors may make it difficult for doctors from elsewhere to transfer their practice to the state. "In Florida a group of 50 physicians and dentists have organized to fight what they regard as the state's restrictive licensing regulations. Although all are licensed to practice in other states, they have been unable to get licenses in Florida. Unlike many states, Florida doesn't grant automatic reciprocity to licensed doctors and dentists from other states. An opthamologist who moved to Hallendale, Florida from New York claims the policy represents 'a deliberate, conscious plan of exclusion' by what he calls Florida's 'arrogant, overworked, overpaid' physicians."[3]

Licensing can be used as a tool of state manpower planning, not only to exclude unwanted health professionals from elsewhere but to fill gaps in the supply of professionals. Forty-three states have introduced a "limited license" for physicians willing to work in areas or in particular institutions experiencing a severe manpower shortage. New Jersey, which has high vacancy rates in internships and residency positions, considered a strategy of attracting a large number of foreign medical graduates, licensing relatively few of them, and requiring the unlicensed foreign medical graduates to work in certain institutions.[4] This particular bill was defeated in New Jersey, but it is an indication of the fact that licensing is not used exclusively to protect consumers from incompetence.

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[1] Kay Mills, "Health Fee Monopoly Charged," *Washington Post*, June 9, 1974, quoted in *Medical Care Review*, June 1974, pp. 734-735.

[2] Clark Havighurst, "Health Maintenance Organizations and the Market for Health Services," *Law and Contemporary Problems*, Autumn 1970, p. 768.

[3] Montgomery, *op. cit.*

[4] Arlene Goldblatt, Louis Wolf Goodman, Stephen Mick, Rosemary Stevens, "Licensure, Competence and Manpower Distribution," *New England Journal of Medicine*, January 16, 1975, p. 140.

Licensing has not performed entirely satisfactorily as a means of ensuring competence. Physicians who barely keep up with changing medical knowledge, "suffer a debilitating stroke, become senile or incompetent for other reasons are rarely weeded out of the profession, according to medical critics... At least 5% of the nation's 350,000 doctors are incompetent," according to Dr. Robert Derbyshire, past president of the Federation of State Medical Boards and secretary-treasurer of the New Mexico Examining Board.[1] A recent study showed that fewer than 2,000 doctors had their licenses suspended or revoked or were reprimanded by examining boards in the last ten years.[2] The fact that incompetents are not rigorously weeded out of the profession is one reason for the spate of malpractice suits in recent years. The increasingly educated population is more likely to spot -- and take action against -- the errors of incompetent doctors.

The rapid changes in medical technology also make it more difficult for doctors to preserve their competence. As the 1970 report of the Carnegie Commission on Higher Education pointed out, "physicians who don't remain lifelong students 'face partial obsolescence in five to ten years.'"[3] To remedy this problem, seven state medical associations and two medical specialty societies now require members to take continuing education courses or forfeit their membership. A growing number of states have passed relicensing laws, requiring that doctors be relicensed periodically, and nineteen of the twenty-two medical specialty boards have endorsed recertification for doctors in their specialty. In some cases continuing education courses are required for a doctor to be relicensed or recertified.

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[1] Joann Lublin, "Do Doctors Need a Check-up?", Wall Street Journal, February 25, 1974.

[2] Ibid.

[3] Ibid.

Requiring doctors to take clinical refresher courses can pose problems for busy doctors, particularly those in outlying areas. A doctor may have to close his office several days a year to travel to a distant city for a refresher course. The New Mexico medical school hopes in time to alleviate this problem by making available senior residents, doctors training to be specialists, to act as a substitute for the doctors taking "mini-residencies" at the medical school.

Another difficulty is designing a satisfactory method of measuring a doctor's competence to determine if he should be relicensed or recertified. Many perfectly competent doctors are horrified at the prospect of having to take a mandatory written examination years after their departure from medical school. Written examinations also can't evaluate a physician's proficiency in actual patient care, his interpersonal skills, his attitudes, his ability to make clinical decisions, and the like. The American Board of Family Practice has designed a four-part recertification test, which it will begin using in 1976. One part of the test will be an office records review, but this is not too satisfactory a method of judging a physician since the quality of doctors' office medical records tends to be poor. Dr. William Felch, president of the American Society of Internal Medicine, feels that the real answer is peer review. "It can check on the process of care and its outcome, either concurrently or retrospectively, and look at broad patterns of care or focus on the individual physician. Best of all, peer review assesses doctors where they are, in their milieu, doing what they regularly do. There is only one problem..., the system for conducting peer review has not yet been perfected. A medical audit system has been devised which is workable in a hospital setting, but it has not yet been put together for institutions and ambulatory care."[1]

In 1974 Senator Kennedy proposed that the Secretary of HEW develop and establish national licensing standards and prepare national examinations for initial licensing and subsequent relicensing of doctors and dentists. This would eliminate variations in state licensing standards and prevent states such as Florida from placing restrictions on licenses for health professionals licensed in other states. Kennedy's proposal for national licensing was defeated in the Senate, but pressure for national licensing may grow if the deficiencies in state licensing are not remedied.

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[1] Quoted in "Trend Toward Periodic Recertification, Relicensure Seen Gaining Momentum," House Physician Reporter, September-October 1974.

GOVERNMENT FINANCING AND REGULATION OF HEALTH FACILITY CONSTRUCTION AND OPERATION

The Hill-Burton Act money the federal government began investing in hospital construction in 1946 stimulated rapid growth of hospitals. Concerned that this uncontrolled growth had played a role in the rapid escalation of health care costs, the federal government in 1966 passed a law setting up Comprehensive Health Planning agencies that were supposed to guide and regulate this growth. Some teeth were given to comprehensive health planning efforts by a 1972 amendment to the law and by Certificate of Need laws passed in some states, requiring advance approval of health facility construction. A new law passed at the end of 1974 is designed to give the replacements for Comprehensive Health Planning agencies some power not only to control and channel new construction but to push for the closing or merger of existing facilities considered superfluous.

THE HILL BURTON ACT[1]

The Hill-Burton Act (The Hospital Survey and Construction Act of 1946) provided substantial funds for hospital construction to remedy the shortage and maldistribution of hospital facilities created by the lack of construction during the Depression and World War II. A 1954 amendment authorized grants not only for hospital construction but also for the construction of diagnostic and treatment centers, chronic disease hospitals, rehabilitation facilities, and nursing homes. By 1964, when the shortage of hospital beds had been greatly alleviated, the Hill-Burton Act was amended to provide funds not only for construction but also for modernization and replacement, with more priority being given to urban areas.

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[1] Most of this information on the Hill-Burton Program is from: U.S. House of Representatives, Committee on Interstate and Foreign Commerce, Report by the Committee Together with Additional Views, National Health Policy, Planning and Resources Development Act of 1974 (House Report No. 93-1382), September 26, 1974.

The Hill-Burton Program was established as a federal-state partnership, in which state agencies were given an initial grant to survey hospital needs and then given funds to carry out a construction program directed toward meeting those needs.

The Central Office of the Hill-Burton Program at HEW established standards and guidelines for surveying and determining needs, while the Regional Offices administered and coordinated the surveys at the state level. The State agencies, most of which were located within Departments of Health, were responsible for inventorying health care facilities, determining need, and preparing the actual plans for meeting the needs on a statewide basis.

During the history of the Hill-Burton Program from 1947 to July 1, 1974, over $4.1 billion in grant funds was appropriated for construction or modernization and over $1 billion in loan principal (either direct or guaranteed) was committed. During this period a total of 11,493 grant projects were approved, accounting for nearly 496,000 beds[1] in hospitals and long-term care facilities, as well as 3,450 outpatient and other health care facilities. More than 3,969 communities had been aided in the construction or modernization of 6,549 public and non-profit facilities. The Hill-Burton grants just provided seed money for most of these projects. Of the $14.5 billion which these projects cost, the Hill-Burton share was $4.1 billion (28% of the total). The other $10.4 billion came from state and local sources.[2]

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[1] According to the American Hospital Association's Hospital Statistics 1975, the nation in 1974 had 856,400 beds in non-federal, short-term hospitals (exclusive of for-profit hospitals, which are not eligible for Hill-Burton funds). The Hill-Burton Program over the years played a role in the construction of nearly 40% (365,250) of these beds.

[2] U.S. Department of Health, Education, and Welfare, Health Resources Administration, "Fact Sheet: The Hill-Burton Program," September 1974.

After the enactment of the 1970 amendments, the Hill-Burton Program shifted its emphasis from grants to loans and loan guarantees. Loan guarantees with interest subsidies were provided to private non-profit agencies, and direct loans were provided to public agencies to aid in modernizing or constructing health care facilities. Between January 1972, when these programs began, and July 1, 1974, loans or loan guarantees had been committed for a total of 255 projects. Of the $2,154.6 million estimated to be the total cost of these projects, the loan and loan guarantee programs provided about 44% or $1,039.1 million, of which only $97.7 million was in direct loans.[1]

In recent years there has been not only a switch from grants to loans but also a shift in the type of projects assisted under Hill-Burton. At the outset of the program in 1947, 78% of Hill-Burton funds were expended for the construction of new health care facilities, particularly hospitals. By fiscal 1974 less than 3% of Hill-Burton funds were going for this purpose. Of the 255 projects assisted with loans or loan guarantees since January 1972, 244 involved, not the construction of new hospitals, but changes in existing facilities, either modernization or the addition of services such as outpatient clinics and long-term care beds. Only eleven completely new hospitals were aided. Of the 245 facilities awarded Hill-Burton grants in fiscal 1974, 54% were categorized as "ambulatory care."[2] The de-emphasis of new hospital construction is in part a result of the apparent oversupply of hospital beds at present, but it also reflects the fact that third party (Medicare, health insurance, etc.) reimbursement for capital depreciation enables hospitals to obtain loans for construction in private markets and thus reduces the need for government grants. Outpatient facilities, on the other hand, have greater difficulty financing capital expenditures since third party coverage is less extensive for ambulatory care than for inpatient hospital care.

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[1] U.S. Department of Health, Education, and Welfare, Health Resources Administration, "Fact Sheet: The Hill-Burton Program," September 1974.

[2] Ibid.

Hill-Burton state plan data indicate that as of January 1975 there were 40,000 surplus hospital beds in the United States. Hill-Burton may have played a role in creating this surplus, but it has also helped alleviate the maldistribution of hospital beds that existed in this country at the end of World War II. In 1946 the eight states with the highest income had 4.0 beds per 1,000 population while the eight states with the lowest income had only 2.5 beds per 1,000 population. By 1971 the same eight states with the highest income had 4.08 beds and the eight states with the lowest income had 4.34 beds per 1,000 population.[1] However, Hill-Burton has not done as well at alleviating the maldistribution of hospital beds and health care facilities within the individual states. Up to 1973, for example, not a single Chicago inner city community hospital was helped by the program while two dozen outlying and suburban hospitals were able to build new or to expand with federal subsidies.[2] The 1964 amendment to the Hill-Burton Act, among other things, established a special category for modernization funds aimed primarily at correcting deficiencies in urban hospitals; the 1970 amendment gave special consideration to building outpatient facilities in poverty areas, whether at a hospital or free-standing. Construction monies have not gone to many poverty areas, primarily because few proposals have been submitted.[3] This was largely due to the inability of the community to raise matching funds. In general, however, our need now, even in poverty areas, is not for more hospital beds but for modernization and renovation. Over a third of the country's general hospitals and long-term care facilities need remodeling or replacement. There is also a continuing and growing need for outpatient facilities.

Although Hill-Burton was primarily associated with capital financing, it also endeavored to promote and elevate standards of facilities design, construction, and operation through consultation services by architects, engineers, equipment specialists, and hospital administrators. This consultation was provided at both community and institutional levels. The design expertise provided by Hill-Burton consultants covered all types of health facilities, clinics, and outpatient departments as well as hospital beds. Hill-Burton also improved health facility operations through the requirement that states adopt standards of maintenance and operation, and enforcement thereof, for facilities constructed under the program. Facilities aided by Hill-Burton have, in addition, been required to provide "community service," which has meant a "reasonable volume of care to persons unable to pay" and no discrimination against Medicare and Medicaid patients.

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[1] "The Health Facilities Assistance Act of 1974," Congressional Record 120: S9536, June 4, 1974.

[2] de Vise, *op. cit.*, p. 149.

[3] "Health Facilities Assistance Act...," *op. cit.*

Hill-Burton promoted the concept of comprehensive health planning to improve the coordination of health facilities and insure against unnecessary duplication of services and facilities. The 1964 amendments to the Hill-Burton Act established areawide health facilities planning councils or "318 agencies." These agencies were supplanted by Comprehensive Health Planning Agencies, created in 1966 and described below.

The Hill-Burton Program has now been absorbed in the National Health Planning and Resources Development Program described later in this chapter. During its 29-year history, the Hill-Burton Program was highly successful in increasing both the supply of hospital beds and the quality of hospital facilities, but, it aided operation of the bias in the system toward expensive health care facilities. Like government-financed health research, the Hill-Burton Program provided large sums of money to further goals generally endorsed enthusiastically by leading health care providers. In both cases the government was not trying to push the health care system in a direction that conflicted with the interests and inclinations of health care providers.

COMPREHENSIVE HEALTH PLANNING (CHP) AGENCIES[1]

To coordinate and control the rapid growth in health facilities stimulated by Hill-Burton, the Comprehensive Health Planning and Public Health Services Amendments of 1966 authorized funds for state and areawide Comprehensive Health Planning Agencies. This legislation, an outgrowth of the 1964 amendment to the Hill-Burton Program establishing areawide facilities planning councils (318 agencies), mandated that Comprehensive Health Planning (CHP) agencies plan not just for health facilities but for all segments of the health system as well as for any aspect of the physical, work, or personal environment which affected health.

The legislation had three major elements: Section 314a authorized state CHP agencies, which became known as (a) agencies; Section 314b authorized areawide (local) CHP agencies, which became known as (b) agencies; and Section 314c authorized grants to public or non-profit private institutions or other organizations to assist them in the costs of training, studies, and demonstrations intended to improve comprehensive health planning. The 314c program was reduced in 1970 and eliminated in 1973 because too few of the graduates of its courses worked in CHP agencies, and the short-term training programs for planners were considered unsuccessful.

The first few years of the CHP program were spent putting the structure in place and setting up guidelines, policy, and implementation plans. Each state governor designated the body to serve as the state's CHP agency. Located in various offices within the state governments, these agencies received relatively small federal grants. For example, in 1971 and 1972, when $7.7 million was appropriated each year, 26 of the agencies received the minimum grant available under the formula, less than $100,000. Since in many cases the federal grant was 90% of the state's financial resources, as many as half of the state CHP agencies operated with a total budget of only about $100,000 a year. This meant that the agencies had very small staffs (less than five people), and these staffs were generally underpaid.

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[1] Much of the information on Comprehensive Health Planning is from: U.S. House of Representatives, Committee on Interstate and Foreign Commerce, op. cit.; and Comptroller General of the United States, Report to Congress -- Comprehensive Health Planning as Carried Out by State and Areawide Agencies in Three States, April 18, 1974.

At the local or areawide level, the early years of the program were spent converting the Hill-Burton planning councils into areawide CHP agencies or developing new agencies where necessary. It usually took two years before an agency was fully operational or met all the requirements established by HEW.

By 1974 there were 218 areawide CHP agencies, covering about 79% of the U.S. population. (Nine of the smallest states and territories do not have areawide agencies.) Of these, 159 had moved out of the "organizational stage" and had begun planning activities. Since the legislation provided that these agencies could be either public or private non-profit, there was a wide diversity among them: 161 were non-profit private organizations, 16 were economic development districts, 18 were regional planning commissions, 8 were councils of government, and 12 were state-assisted local governments.

Eleven of these local agencies crossed state lines. The geographic area and the size of the population served varied greatly among the agencies. The areas ranged in size from a single county (Clark County, Nevada) to 32 counties in southern Georgia. Eleven agencies served fewer than 100,000 people, whereas the agencies in New York and Los Angeles each served populations exceeding seven million people.

Like the state agencies, the areawide CHP agencies generally had small, underpaid staffs. Some of the funding for local agencies was supplied by health care providers (hospitals, Blue Cross, etc.), who thereby were able to exercise some control over CHP activities. The law specified that a majority of CHP advisory council members had to be consumers, but many advisory councils did not have the required consumer majority, or, if they did, consumers did not constitute the majority actually in attendance at council meetings. Even when consumers attended meetings, providers were usually able to dominate anyway by virtue of their knowledge, authority, and prestige.[1] Where consumers dominated, they sometimes failed to guide the agencies effectively because they lacked knowledge about health care or because they squabbled among themselves.

CHP agencies also floundered because of lack of guidance from Washington. Initially HEW deliberately avoided providing such guidance because it considered that health planning was a state and local function, and plans should be based on community needs rather than national priorities. By 1973, however, HEW had devised performance standards for CHP agencies and had begun to assess agency performance against these standards. Beginning in 1973 HEW also began to invest sizeable sums in a technical assistance program to help CHP agencies with their work. Much of this technical assistance, however, was provided by outside consultants, and the HEW staff in Washington was too small to ensure that the technical assistance matched the actual needs of the agencies.

Many agencies were diverted from their planning tasks by the need to review proposals for capital expenditures for health facilities. The Social Security Amendments of 1972 added a Section 1122, which provided that health care facilities would not be reimbursed by Medicare, Medicaid, or the maternal and child health programs for depreciation, interest, or return on equity capital for capital expenditures determined to be inconsistent with criteria or plans developed by state and areawide CHP agencies. Although the final ruling on a proposed capital expenditure might be made by some state-designated body other than the CHP agencies, these agencies reviewed at great length all health facility capital expenditure projects either under Section 1122 or under the state Certificate of Need laws (described below). Project review so absorbed the time and interest of CHP agencies that they failed to develop comprehensive health plans against which to judge the projects. The U.S. Comptroller General's report to Congress in April 1974 indicated that few CHP agencies had relatively mature working committees contributing to the planning effort, and almost no agencies had made significant progress toward implementing planning processes or developing comprehensive health plans. The report concluded that, although CHP agencies had had some success in curbing unwarranted health facility construction, many agencies were underfunded, understaffed, directionless, and lacking in federal assistance and monitoring.

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[1] A study of eight Model City health programs in Michigan found that providers determined the decisions no matter what the provider/consumer mix on the decision-making body. Chester Douglass, "Effect of Provider Attitudes in Community Health Decision-making," Medical Care, March-April 1973, pp. 135-144.

REGULATION OF CAPITAL EXPENDITURES AND CHANGES IN SERVICE[1]

In response to the rapid escalation in health care costs, attributed at least in part to the health facility building boom in the 1960's, laws and regulations have been enacted to curb excessive health facility construction by requiring prior approval for capital expenditures. As indicated above, Section 1122 of the 1972 Social Security amendments authorized the government to refuse to include building or depreciation charges in the Medicare-Medicaid payments to any health facility that ignored a state-designated planning agency's ruling in regard to its capital expenditure plans. Rather than accepting the federal control implied in participating in the Section 1122 program, nine states are instead relying on their own Certificate of Need laws, which require a "determination of need" for capital expenditures and whose procedures the federal government will accept if they meet Section 1122 standards. Fifteen states with Certificate of Need laws also participate in the Section 1122 program in order to get federal funding and also to compensate for gaps in the state's Certificate of Need statute. Twenty-two states rely on the Section 1122 program only, but in a number of these states

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[1] Much of the information in this section is from: U.S. Department of Health, Education, and Welfare, Health Resources Administration, *An Analysis of State and Regional Health Regulations: Health Resources Studies*, DHEW Publication No. (HRA) 75-611, based on a study by Lewin and Associates, Inc., September 16, 1974.

Certificate of Need laws have been proposed. Five states have neither enacted Certificate of Need statutes nor contracted for Section 1122 reviews:[1] Ohio and Illinois both are proposing to enact Certificate of Need laws, and meanwhile their health facilities construction is subject to controls by Blue Cross plans; West Virginia and Texas provide only for voluntary reviews by CHP agencies; and Vermont exercises no control over capital expenditures.

The 24 existing Certificate of Need laws vary widely in their coverage. Some require advance approval of capital expenditures for all types of health facilities, some cover only hospitals and/or only nursing facilities. Some require prior approval not only for changes in facilities but also for changes in services and/or equipment. In most states, the threshold for review of a project is a capital expenditure of $100,000. A change in the number of beds or a substantial change in service may also necessitate a project review.

The agency that must approve proposed capital expenditures is usually either the state's Department of Health or Human Resources or a state Health Council or Health Commission. In three states, the final decision on proposed projects rests with the state CHP agency and in two states with local CHP agencies. However, before the final decision is made on granting approval to a project, reviews of the project are generally made at two or more levels. For example, a project may be reviewed by the local CHP agency and then by the state CHP agency before a final decision is made by the state's Department of Health.

Various sanctions are used to ensure that capital expenditures get the required approval before the health facility actually embarks on its proposed plan. Except for California and Florida, the 24 states with Certificate of Need laws withhold a license to operate from a disapproved facility. Since most health facilities must be licensed by the state, this sanction serves as a direct control over capital expenditures. Programs undertaken under Section 1122 enforce their decisions on proposed projects by withholding Medicare-Medicaid reimbursement for all costs associated with the disapproved capital expenditure (interest costs, depreciation, etc.). In 42 states, Blue Cross also will not reimburse health care providers for costs associated with capital expenditures not approved by Blue Cross, which either has its own project review procedures or accepts the findings of the state-designed planning agency. Blue Cross can also deny participatory status to non-conforming institutions, which then would be reimbursed only for emergency care or would be reimbursed only at a lower level. The indirect controls of Section 1122 and the Blue Cross reviews do not prohibit construction, but they do reduce the ability to recoup costs and therefore may affect efforts to enlist necessary financing. Another indirect control, used in 42 states, is the withholding of funds from state capital financing programs for projects which have not obtained the required prior approval. Thirteen states in addition rely on voluntary compliance with the planning efforts of CHP agencies. The most successful CHP agencies are those which imply sanctions by virtue of their relationships with the local government, financial institutions, or third party reimbursers.

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[1] The total number of states in the various categories adds up to 51 since the District of Columbia is counted as a state. These figures indicate the situation as of September 1974.

There is no question that Certificate of Need laws and Section 1122 programs have put some brakes on health facility construction. The brakes have been applied both directly and indirectly:

- Some capital expenditure projects have been rejected or reduced in scope.
- Some health facilities, fearing rejection, have abandoned plans for expansion without ever submitting the plan to the Certificate of Needs process.
- Hospital trustees and administrators have been given a weapon for resisting doctors' requests for expensive facilities.
- To meet the requirements of the project review process, hospitals have been compelled to do some real long-range planning and to look at their projects in a broader context, not just as part of an architect's plan.

- Project review procedures have pressured hospitals into getting more community input in their planning, although the voice of the community has probably not had too great an impact on major hospital decisions.
- Some pressure has been exerted on hospitals to coordinate their plans with those of other institutions and to consider sharing facilities with others.
- A weapon has been created to curb "cream-skimming" by for-profit hospitals, that is, offering only profitable services and thereby reducing the ability of non-profits to subsidize unprofitable services with profitable ones.[1]

There are, however, many criticisms of the project review process, both about current procedures and about the basic concept:

- Projects have generally not been reviewed within the context of a comprehensive health plan.
- Clear cut standards for determining need have not been developed, nor have criteria for measuring the financial feasibility of projects. As a consequence, project review decisions often appear to be arbitrary.
- Project review has increased construction costs by delaying projects while costs were rising.
- Giving the community a voice in project review tends to dilute efforts to curb capital expenditures, for the community generally is reluctant to vote against more or better health services, no matter how high the cost. "Consumer involvement primarily is a device for making consumers share the responsibility for runaway inflation."[2]

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[1] Clark Havighurst, "Regulation of Health Facilities and Services by Certificate of Need," Virginia Law Review, October 1973, p. 1164.

[2] Clark Havighurst, "Regulation in the Health Care System," Hospitals, June 16, 1974, p. 68.

- Project review focuses on capital expenditures when a high percentage of health care costs are labor costs. The argument has been made that, "if opportunities exist for raising prices, hospitals may find ways of allowing non-capital expenses, such as personnel costs, to rise even if capital costs and utilization are somehow controlled."[1]

- Project review can be used more readily to prevent new construction than to eliminate underutilized or obsolete existing facilities. In some states, such as Massachusetts, an attempt has been made to utilize Certificate of Need laws to pressure hospitals into making changes in facilities or services not affected by the capital expenditure plans. For example, a hospital applying to install a new X-ray unit may encounter difficulty in getting approval for this unless it eliminates its underutilized obstetrical unit or merges with an adjoining hospital. Attempts to utilize Certificate of Need laws in this fashion have met vigorous protests, both on the grounds that they are unfair and on the grounds that the Certificate of Need laws do not give project review bodies such authority. Massachusetts, for one, is retreating from its attempt to utilize its Determination of Need process in this fashion. However, the Philadelphia and Western Pennsylvania Blue Cross require periodic review of hospitals, after which beds or facilities judged to be unneeded medically or unsafe physically must be phased out or Blue Cross will deny payments.[2]

- Project review tends to favor the larger, established institutions and to perpetuate the existing pattern of health care.[1] Regulators, who traditionally have a protective attitude toward the regulated firms' investments and revenues, are unlikely to approve a new facility that might compete with and thus seriously cut into the revenues of an established institution. Project review thus may be used as a weapon to hamper the development of useful innovations such as Health Maintenance Organizations (described in Chapter III), abortion clinics, and the like.[2] One reason Certificate of Need laws have been passed in such rapid succession is that "control of facilities expansion is currently in accordance with the goals of both the health planners and the dominant, established health care institutions in most states and communities."[3] Here again the government is moving in step with the health establishment and not striving for any basic changes in our health care system.

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[1] Clark Havighurst, "Regulation in the Health Care System," Hospitals, June 16, 1974, p. 68.

[2] Victor Cohn, "Public Control Seen Needed for Hospitals," Washington Post and Times Herald, August 31, 1973.

NATIONAL HEALTH PLANNING AND RESOURCES DEVELOPMENT ACT OF 1974[4]

In 1974 Congress passed a new law designed to put some teeth in comprehensive health planning efforts and to combine in one program comprehensive health planning, the Hill-Burton Program, and the Regional Medical Program (to be discussed later in this chapter).

This law calls for the creation at the local level of Health Systems Agencies (HSA's). The geographic area to be served by each HSA is to be determined by the Secretary of HEW on the basis of recommendations by the state governors, and the areas may differ from the areas served by the old areawide CHP agencies. An areawide CHP agency may apply to be accepted as an HSA, but it will not necessarily be the one selected by HEW.

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[1] William Curran, Richard Steele, and Ellen Ober, "Government Intervention on Increase," Hospitals, May 16, 1975, p. 59.

[2] Havighurst, "Regulation of Health Facilities...," op. cit., pp. 1143-1232.

[3] Curran, op. cit., p. 61.

[4] P.L. 93-641.

HSA's will differ from the old areawide CHP's in several respects. There will be no more agencies serving only a small population: An HSA will generally serve a population of 500,000 to 3,000,000 unless the Secretary of HEW approves otherwise. An HSA can be a public or private non-profit corporation, but consumer representatives must constitute 51-60% of its Board of Directors, and "consumer" is much more rigidly defined than it was under the old comprehensive health planning law. Consumers on the Board must reflect the ethnic, racial, and socio-economic composition of the population. The membership shall also include public elected officials and government authorities. And not less than one-third of the membership shall be direct providers of health care.

HSA's will be much more generously financed than the old CHP agencies. No longer allowed to accept funds from health care providers, HSA's will have enough federal funds to hire a staff of reasonable size: The formula prescribes a federal grant of 50¢ per person in the population the HSA serves, and this should total a minimum of $250,000.

HSA's functions include the following:

1. The development of a Health Systems Plan for the area, which is acceptable to the state and federal governments and which encompasses not only the traditional health services and facilities but also health manpower needs and environmental and occupational exposure factors affecting health.
2. The development of an Annual Implementation Plan, detailing how the Health Systems Plan is to be pursued and reporting progress in implementing the previous year's plan. In short, plans should be more than documents collecting dust on the shelf.
3. Reviewing all proposals for capital expenditures of $100,000 or more or for the addition of beds or for a substantial change in service. HSA's are to review not only the proposals of private, state, and local facilities but also proposals for the expenditure of federal funds, including expenditures for community mental health centers and for alcohol treatment and drug abuse

centers. (There were complaints under the old Comprehensive Health Planning Act that planning agencies could not control federal outlays in their area.) These project reviews are to determine whether the proposed project fits in with the area's Health Systems Plan.

4. Providing technical assistance and/or planning grants to individuals and public and private entities for the development of projects and programs deemed necessary to achieve the objectives of the Health Systems Plan. In sum, HSA's are not restricted to approving or disapproving proposals of others; they can promote the development of proposals that may further HSA plans.
5. Periodically reviewing existing institutional health services and making recommendations about their appropriateness to the state planning agency. Thus, HSA's are not limited to reviewing proposals for new facilities and services but can seek to make changes in the existing health care system.

At the state level, the new law creates State Health Planning and Development Agencies and State Health Coordinating Councils (SHCC's). Each HSA in the state is to have at least two representatives on the SHCC. The functions of these state bodies are as follows:

1. With the assistance of the State Agency, the SHCC is to review and coordinate the plans of the HSA's and to prepare a State Health Plan. The law does not specify how conflicts between the plans of the various HSA's are to be resolved or how the plans of the HSA's are to be integrated into a coherent state plan. Regulations are being prepared to clarify such problems.
2. On the basis of recommendations by the HSA's, the State Agency makes the final decisions on proposed new projects under Section 1122 and the state Certificate of Need law. The state must have or develop a Certificate of Need program that provides that only those services, facilities and organizations that

are needed shall be approved. Although the State Agency makes final decisions on proposed new projects, it is expected to follow the recommendations of the HSA's unless it presents a written brief to the Regional HEW Office for its contrary ruling.

3. With the approval of the SHCC, the State Agency prepares and annually reviews a State Medical Facilities Plan that outlines how federal funds for health facility construction and modernization are to be spent. This provision brings the old Hill-Burton Program under the aegis of the State Health Planning and Development Agencies. Specific projects under the State Medical Facilities Plan must be reviewed by the appropriate HSA and then approved by the State Agencies. The total funds allocated for facility construction and modernization are considerably less than they have been under Hill-Burton. The new law specifies that at least 25% of these funds are to go for ambulatory care facilities.

4. The State Agency is to review periodically existing institutional health services and, after consideration of HSA recommendations, to publish its findings on the appropriateness of these services. No provision is made for the State Agency to take action on the basis of its findings, but it would be possible, of course, for state rate-setting commissions and state licensing bodies to use these findings in making their decisions. In short, the effectiveness of the prescribed reviews of existing facilities lies with state offices not encompassed in the planning process.

The law also establishes [illegible] National Council for Health Policy which is assigned the task of developing a national health policy, specifying goals and alternatives for achieving these goals. State and HSA plans are supposed to be in conformity with this national health policy, but it is not clear how national policy will in actuality be translated into the detailed plans prepared by HSA's or how effectively national policy will guide HSA's.

The new legislation seeks to remedy many of the weaknesses in the old comprehensive health planning efforts, but it is not clear that sufficient cognizance has been taken of the difficulty of developing plans that encompass a complex system and of finding measures to ensure that politically potent health care providers actually conform to the plan.

One feature of the law that may in the long run have considerable impact is the requirement that uniform cost accounting systems be developed, for, if ever completed and built upon, this could provide a tool for effective rate regulation either by the states or under national health insurance. A uniform system is to be developed for calculating the rates health institutions charge third party payers (health insurers, etc.), and this is to be "based on an all-inclusive rate for various categories of patients"; rates are to reflect the "true cost of providing services to each such category of patients"; and "revenues derived from patients in one category shall not be used to support the provision of services to patients in any other category." Differences in rates to various classes of health care purchasers must be "based on justified and documented differences in the costs of operation of health service institutions."[1] At present hospitals may charge different rates to Blue Cross, commercial health insurers, and patients who pay their own bills, and there have been protests about the preferential rate Blue Cross has often been able to obtain. (See Chapter III.)

The cost accounting system is supposed to take into consideration the different types of institutions and the different sizes of these institutions, but teaching hospitals are worried that sufficient allowance will not be made for the higher costs they incur because of their sophisticated facilities, specialized staffs, teaching programs and so forth. Teaching hospitals are already suffering from the limits imposed on Medicare reimbursement of their costs in 1974. (See section on "Medicare,' below.)

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[1] P.L. 93-641, Section 1533.

STATE REGULATION OF HOSPITAL OPERATIONS

Health facilities are generally licensed by some state body, usually located in the state's Department of Health. The power to license enables the states to set standards for health facilities, specifying the equipment, the staff, the safety precautions, and so forth that the facility must have to qualify for a license.

States are increasingly attempting to use their licensing power to effect changes in the health care system. For example, some states are trying to foster regionalization of hospitals: A few selected hospitals will be given a license for a special unit, such as a neonatal intensive care unit, and all other hospitals in the region are under pressure to make arrangements to transfer to these units their high risk newborns. Some states are concerned that coronary care units, cancer units, and the like are being installed in too many hospitals. The units in the smaller hospitals tend to be underutilized, and in an underutilized facility the cost per patient is unnecessarily high because of the high fixed costs incurred whether the unit is full or empty. Patient care in underutilized units also tends to be of lower quality, for the staff doesn't treat enough patients to acquire the experience needed for the provision of first class care. A Presidential Commission in the early 1960's found that, in the 800 hospitals equipped to do closed heart surgery, the institutions that had a low heart surgery workload had a far higher mortality rate.[1] For these reasons, some states are considering using their licensing power to force the closure of small, underutilized special units and thereby to steer patients to a select number of hospitals whose units have the specialized equipment and staff and the higher utilization rates more likely to ensure better (and cheaper) care.

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[1] McKinsey and Company, *Health Care: The Growing Dilemma* (New York: 1974), p. 28.

THE GOVERNMENT'S ROLE IN THE PROVISION AND ORGANIZATION OF HEALTH SERVICES

The federal government has traditionally provided health services to the Armed Forces and their dependents and to some veterans. State and local governments have long provided hospitals to serve the poor, the retarded, the mentally ill, and other selected groups. In recent years the federal government, concerned about inadequate health services available to certain groups, has provided grants for maternal and child health services, family planning services, neighborhood health centers, migrant health centers, community mental health services, and alcohol treatment and drug abuse centers. All these government-supported services are designed to fill gaps in the health care system but not to change its basic structure. The government has, however, attempted to make some alterations in the organization of health care through the Regional Medical Program and more particularly through the Health Maintenance Organization Act of 1973.

DIRECT PROVISION OF HEALTH SERVICES BY GOVERNMENTS

The federal government has traditionally provided both outpatient clinics and hospitals which serve members of the Armed Forces and their families and an extensive network of Veterans Administration facilities which provide free care to certain veterans. Of the total federal health expenditures in 1974, about 8% went for Defense Department health facilities and another 8% went for Veterans Administration facilities. (See Exhibit II-1.) The Veterans Administration operates 171 hospitals, with a total of almost 100,000 beds, 84 nursing homes, 19 domicilary facilities and a number of free standing outpatient clinics.[1] These facilities siphon off some demand that would otherwise fall on non-federal health resources and that might be transferred to non-federal resources if a comprehensive National Health Insurance Program is instituted. In addition to the extensive federal programs for the military and veterans, the Public Health Service has been providing some health care to seamen and to the Coast Guard since 1798. The government has also long provided health care for American Indians through the Indian Health Service, but the funds for this are small, and the services provided have been criticized as inadequate.

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[1] Health Policy Program, School of Medicine, University of California, San Francisco, The Role of the Veterans Administration Medical System in the American Health Care Enterprise, July 31, 1974, p. 3.

In recent years the federal government has moved into the provision of a variety of health services to other groups, mostly the needy. In these programs, the federal government does not provide the services itself but gives grants to others to do so. Federal grants are made for the following purposes:

- The Social and Rehabilitation Service supports state and local programs directed against disabilities resulting from mental retardation, cerebral palsy, epilepsy, stroke, and other diseases.
- The Maternal and Child Health Program, which began in 1935, supports health services for pregnant women, infants, and children with crippling or other handicapping conditions. It provides services primarily in rural and economically depressed areas.
- The Family Planning and Population Research Act of 1970 authorized project, formula and training grants and contracts for family planning programs and services (other than abortion) and research grants and contracts in fields related to family planning and population.
- The National Sickle Cell Anemia Control Act and the National Cooley's Anemia Control Act of 1972 authorize grants and contracts for screening, treatment and counseling, research, and educational programs related to these maladies.
- The Community Health Service helps finance Neighborhood Health Centers and Migrant Health Centers. This program, initiated under the Migrant Health Act of 1962 and the Economic Opportunity Act of 1964, provides medical care to low income people through 157 health centers, which in 1974 served 1.6 million people,

including 355,000 seasonal farm-workers and their families.[1] This program was initially in the hands of the Office of Economic Opportunity, not the traditional health bureaucracy in HEW, which at that time tended to share the medical profession's lack of interest in community health.

- Community Mental Health Centers have been receiving federal grants for construction and initial staffing since 1963. By 1974 these centers numbered 626 and were serving approximately 1.4 million people.[2] Extra funds were available for projects located in low income areas. No new centers have been funded since 1973.
- Facilities for the Mentally Retarded also receive federal grants for construction and initial staffing, for training teachers, and for research.
- The Alcoholic and Narcotic Addict Rehabilitation Amendments of 1968 authorized grants for construction and initial staffing of facilities for the treatment and rehabilitation of alcoholics and narcotic addicts and grants for special training programs and evaluation studies relating to narcotic addiction services.
- The Emergency Medical Services Systems Act of 1973 established a program of grants and contracts for the development and improvement of area emergency medical services systems and for related research and training.

These various grant programs for the expansion of health services are administered by two offices in the Department of Health, Education, and Welfare (HEW): the Health Services Administration (HSA) and the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA). Although the

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[1] National Planning Association, op. cit., p. 37.

[2] Ibid.

Office of Economic Opportunity administered some of these activities before 1974, everything has now been transferred to HEW. Federal outlays in 1974 for care under all these HSA and ADAMHA grant programs (including the National Health Service Corps) were estimated to be $908.7 million, less than 3% of the total federal health expenditures. However, federal expenditures have risen rapidly for these programs, particularly those of the ADAMHA, whose 1974 budget was five times that of 1969 even in constant 1969 dollars.

State and local governments have long operated hospitals to care for their citizens. State mental hospitals, for example, have 88% of the beds for long-term psychiatric care. Mental hospitals are diminishing in importance as more emphasis is placed on treating psychiatric patients in outpatient clinics and short-term hospitals. In line with this trend, the number of beds in state mental hospitals declined 26% between 1969 and 1973, but the state's share of long-term psychiatric care beds remained the same during those years.[1]

Short-term hospitals are also operated by states but more often by local governments. Of all the beds in non-federal, short-term hospitals, 23% were in hospitals operated by state and local governments in 1973. Traditionally state and local government hospitals have provided care for the poor, but, with the advent of Medicare and Medicaid, the poor can now afford to go to private hospitals, for the government will pay their bills. As a consequence, government hospitals are losing patients to the private hospitals. In 1950 the average daily census in short-term state and local government hospitals was 27% of the average daily census at all non-federal short-term hospitals; by 1973 this figure had dropped to 22%. The occupancy rate in state and local government short-term hospitals was 70.6% in 1973, while private non-profit short-term hospitals had an occupancy rate of 77.8%. In 1950, in contrast, the two types of hospitals had roughly the same occupancy rates.[1] State and local hospitals continue to handle a disproportionate share of outpatient visits, but here, too, their share is declining, falling from 30.7% of all such visits to non-federal, short-term hospitals in 1962 to 28.5% in 1973.[2]

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[1] American Hospital Association, Hospital Statistics, 1974 Edition (Chicago, Ill.: 1974), p. 24; and American Hospital Association, Hospitals: Guide Issue, August 1, 1970, p. 479.

Local governments also operate some 1,700 public health agencies, which focus mainly on organized preventive activities against such things as tuberculosis, venereal disease, heart disease and cancer control.[3] These agencies also provide preventive care for children and treatment for crippled children.

The health services provided by governments at all levels have supplemented the health care available to our citizens, but they have not wrought any basic changes in our health care system. Private health care providers have continued to provide care to patients in the traditional manner, while government programs have focused on those underserved by the private providers.

REGIONAL MEDICAL PROGRAM (RMP)[4]

The Regional Medical Program (RMP), created in 1965, is one federally financed health service program that attempted to make some small changes in the way non-governmental providers deliver health care.

The Heart Disease, Cancer and Stroke Amendments of 1965, setting up this program, prescribed the establishment of regional cooperative arrangements among health care institutions, medical schools, and research institutions to make "the benefits of technological advances in the diagnosis and treatment of those diseases more available to providers of health services, thus improving the quality of care to patients with those diseases." Like the government's health research program, RMP was designed to improve the technological sophistication with which health care was to be delivered, and the diseases emphasized were ones of particular concern to white middle class males. The program gave grants to leaders of the health care system -- the medical schools, the research institutions, the big teaching hospitals -- to educate other providers about new health care techniques. The program promoted cooperation among various health care providers, but it did not aim for any fundamental restructuring of the health care system. Its primary emphasis was an extension of traditional types of continuing education activities and the diffusion of another layer of technology throughout the health care system via the extension of such capabilities as coronary care facilities.[1]

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[1] American Hospital Association, Hospital Statistics, 1974 Edition (Chicago, Ill.: 1974), p. 21.

[2] Ibid.

[3] Milton Roemer, "From Poor Beginnings, the Growth of Primary Care," Hospitals, March 1, 1975, p. 40.

[4] Information on the Regional Medical Programs is from two sources: U.S. Department of Health, Education, and Welfare, Regional Medical Programs, Fact Book, November 1972; and U.S. House of Representatives, Committee on Interstate and Foreign Commerce, op. cit.

Legislation passed in 1970 expanded the RMP's categorical disease focus to include kidney diseases and made a number of program changes to give greater emphasis to primary care, regionalization of health care resources, and better use of health manpower, especially in underserved areas. RMP funds began to be used to improve Emergency Medical Services, expenditures on improving health care services in underserved rural areas were doubled, and projects aimed at special target populations such as Blacks and Indians rose from $5.4 million in 1970 to $17 million in fiscal 1972. Whereas over 80% of RMP activities were focused on single categorical diseases in fiscal 1970, this percentage had dropped to 55% by fiscal 1972. Most of the remaining 45% of RMP was devoted to supplementing the health care delivered by private providers although some projects promoted cooperation among these providers.

As RMP moved into these new areas, it became so diffuse that it lost much of its impact -- and much of its support by the health establishment. In 1973 the program began to be phased out, and such of it that remains has now been put under the National Health Planning and Resources Development Program enacted in late 1974. During its eight year history RMP left few concrete traces of its existence on the U.S. health care system.

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[1] Sheps and Seipp, *op. cit.*, p. 47.

HEALTH MAINTENANCE ORGANIZATION ACT OF 1973

This act seeks to foster the development of Health Maintenance Organizations (HMO's), which provide comprehensive health care to members for a fixed monthly fee. The development of an extensive network of Health Maintenance Organizations would change the U.S. health care system in two important ways. In the first place, unlike the existing methods of health care delivery, HMO's seek to integrate many types of health care under a single umbrella that encompasses all levels of hospital care and care provided by doctors in a multitude of specialties. Integration should promote cooperation among health care providers and should help patients bewildered by the increasingly complex array of providers in the health system. In the second place, HMO's, by substituting a fixed monthly fee for the traditional fee-for-service, give health care providers an incentive to keep costs down: HMO's, operating under a fixed budget, lose money if a patient is given expensive hospitalization unnecessarily, while a fee-for-service surgeon can earn a sizeable fee for performing surgery of dubious value. HMO's and the impact of the 1973 HMO Act on these organizations are discussed in Chapter III.

GOVERNMENT FINANCING OF HEALTH CARE

Over half of federal health expenditures in 1974 went for Medicare and Medicaid, two programs to finance health care for the aged and for the medically indigent. (See Exhibit II-2.) These programs have reduced the financial barriers to health care for the elderly and the needy -- and substantially increased the income of health care providers. For the most part, the health care paid for by Medicare and Medicaid has continued to be delivered by the traditional providers. The government's role in financing this care has enabled it to exercise some controls over providers, but these controls have been designed primarily to curb the rapid escalation in the cost of that care but not to change appreciably the manner in which the care is delivered.

WORKMEN'S COMPENSATION

By 1948 all states had workmen's compensation laws, making employers financially liable for injuries to employees while on the job whether or not the injury was due to the employer's negligence. Injured employees and their dependents can receive cash, medical care, and/or rehabilitation services to indemnify them for loss of wages, medical and hospital expenses, and loss of occupational capacity and skills. These benefits are financed by employers, either by insuring with a private insurance company, by self-insurance, or, in some states, through a state fund. Benefits vary greatly from state to state and by type of employment.[1]

MEDICARE

Medicare, a health insurance program for the aged, was created by Title 18 of the Social Security Act of 1965 and went into effect July 1, 1966. By 1972, over 95% of those aged 65 and older were covered by Part A of Medicare,[2] which provides insurance for hospital care, post-hospital extended

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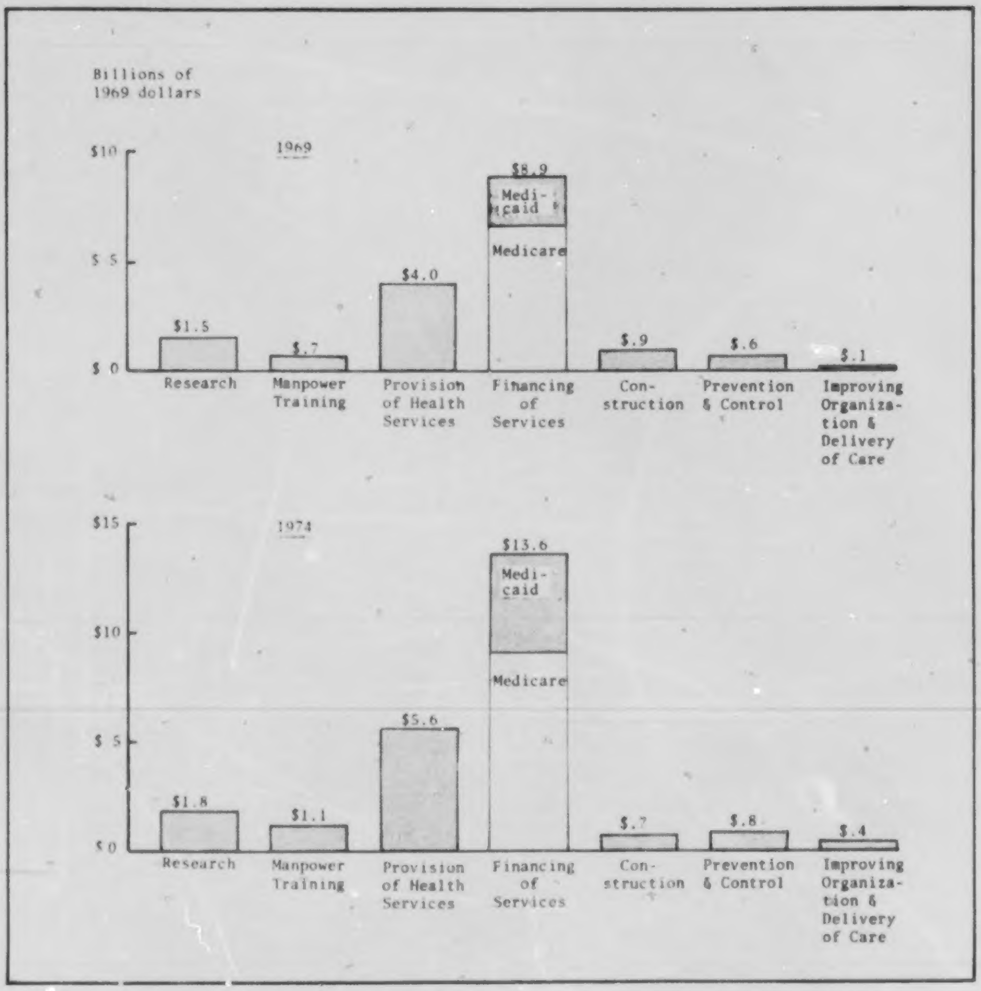
[1] Florence Wilson and Duncan Neuhauser, Health Services in the United States (Cambridge, Mass: Ballinger, 1974), p. 87.

[2] U.S. Department of Health, Education, and Welfare, Social Security Administration, Medicare: Health Insurance for the Aged, 1972; Section 2: Persons Enrolled in the Health Insurance Program, DHEW Publication No. (SSA) 75-11704, (Washington D.C.: 1975).

Exhibit II-2

FEDERAL HEALTH CARE EXPENDITURES: 1969 AND 1974
(Billions of 1969 dollars)



Source: National Planning Association, Center for Health Policy Studies, Chartbook of Federal Health Spending: 1969-74 (Washington, D.C.: 1974).

care, and home health benefits. Part A is financed entirely by Social Security taxes levied on our working population and their employers. Medicare's Part B, which is voluntary but which in 1972 was elected by over 96% of those with Part A,[1] provides medical insurance that covers not only care by physicians but also hospital outpatient services, physical therapy, diagnostic X-rays, ambulance service, and so forth. Those who elect Part B must pay a monthly premium, which originally was $3.00 but by 1975 had risen to $6.70.[2] These premiums generally cover only about half the cost of Part B,[3] and the remainder is financed by the federal government through general tax funds. Medicare is administered by the Social Security Administration, but the fiscal administrator of Medicare claims payments in many states is Blue Cross/Blue Shield.

Medicare requires beneficiaries to pay both a deductible and co-insurance. Those who are hospitalized must pay the first $92 of their hospital bill (the "deductible"), and, if they remain in the hospital for more than 60 days, they must pay a specified dollar amount of each day's bill ("co-insurance"). The size of both the deductible and the co-insurance is based on the average hospital daily charge in this country, and thus both have gone up as hospital daily charges have escalated. Medicare pays the entire cost of home health care up to 100 visits and the entire cost of the first 20 days of care in a post-hospital extended care facility, but the beneficiary must pay a specified dollar amount of the cost of each day from 21-100 days in an extended care facility. Those with Part B coverage must pay in each calendar year the first $60 of the cost of covered medical services (the "deductible") plus 20% of "reasonable charges" for these services ("co-insurance"). Neither Part A nor Part B provides coverage for long-term stays in nursing homes, out-of-hospital prescription drugs, or dental services.

Because of Medicare's deductibles and co-insurance provisions and because of gaps in Medicare coverage, more than half of the Americans over 65 are buying private insurance to supplement Medicare; premiums for this insurance cost the elderly about half a billion dollars in 1974 in addition to the $1.6 billion they were paying for Medicare's Part B.[1] Medicare pays less than half the total health bill of those over 65, and Medicare's share is declining: It dropped from 40% of the health costs of the elderly in 1969 to only 35% in 1974.[2] Direct out-of-pocket medical payments of those over 65 rose from $166.92 per year in 1968 to $311.40 in 1973, as health care costs rose and thus pushed up both the dollar cost of the co-insurance and deductible provisions and the cost of health expenses not covered by Medicare. In the last year before Medicare, direct medical costs paid by the patient were 10.3% of the income of persons aged 65 and older. After Medicare went into effect, this percentage dropped to 6.3% in 1968 and 1969, but it has been rising steadily ever since. By 1973 people over 65 were spending 8.1% of their income on direct medical payments.[3] However, the general population was also spending 7.8% of its income on health care in 1973,[4] and the health bills of those over 65 average three and a half times those for the younger population.[5]

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[1] Ibid.

[2] Medicaid pays Part B premiums for the elderly poor.

[3] U.S. Department of Health, Education, and Welfare Press Release, January 7, 1975, quoted in Medicare Care Review, February 1975, p. 117.

The elderly are receiving more health care for their growing out-of-pocket health expenditures. After Medicare went into effect, the use of health services by those 65 and over jumped 25%, while the use of health services by younger people fell, presumably because of soaring medical care costs.[6] Government controls have since cut the hospitalization rates and the average length of stay of Medicare beneficiaries, but, as was shown in Exhibit I-7 in Chapter I, the elderly are still receiving far more hospital care than they did before Medicare: For people aged 65 or older, discharges from short-term hospitals per 100 persons per year rose from 17.0 in 1962-63 to 23.8 in 1973, an increase of 40%. The hospital discharge rate rose for the elderly in all income groups, but the rise was more than three times as great for those with low incomes than for those with high incomes. However, the elderly were paying fewer visits to a doctor in 1973 than they did in 1957-59: In 1957-59 those 65 and older paid 6.8 visits to a physician per year, while the comparable figure for 1973 was 6.5. Most of this decline was in the high income group, where physician visits per person per year dropped from 8.7 in 1957-59 to 7.1 in 1973. Despite the decline in physician visits, over half of those eligible received benefits under Medicare's Part B in 1973, while less than a quarter of the eligible persons received services under Part A.[1] Although Medicare does not cover dental care, the use of dental services by the elderly in middle and high income groups has increased since the institution of Medicare. The number of people in nursing care and related homes doubled in four years, rising from 534,721 in 1967 to 1,075,724 in 1971.[2] Since Medicare does not cover long-term stays in nursing homes, the nursing home stays of many of the elderly must be paid for by Medicaid or from their own financial resources.

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[1] Study by Senate Special Committee on Aging, quoted in Medical Care Review, Feburary 1975, p. 118.

[2] Ibid.

[3] Phillip Meyer, "Medicare: The High Hopes are Steadily Vanishing," Boston Globe, April 14, 1974, p. B-1.

[4] U.S. Department of Commerce, Office of Business Economics, Survey of Current Business, July 1974, Table 2.5.

[5] U.S. Department of Health, Education, and Welfare, Social Security Administration, Comparison of Cost and Benefit Incidence of Government Medical Care Programs: Fiscal Years 1966 and 1969, DHEW Publication No. (SSA) 75-11852, September 1974.

[6] Jonathan Spivak, "Should Old Folks Pay More For Medicare?", Wall Street Journal, March 23, 1973.

Medicare has not only enabled the elderly to get more health care, but it has undoubtedly also improved the quality of the care received. Qualitative improvements have been most apparent in the area of extended care and home health services, both of which barely existed before Medicare.[3] The government has also set up standards to which providers must adhere to participate in the Medicare program. For example, general hospitals must be licensed under state law, maintain clinical records for all patients, have every patient under the care of a physician, provide 24-hour nursing service, and so forth.[1] Medicare standards have been particularly helpful in improving the quality of care available in small hospitals, many of which were previously not inspected by the Joint Commission on Accreditation of Hospitals.[2] Medicare has also contributed to an overall improvement in hospital care in two other ways. By paying the expenses of the indigent or medically indigent, Medicare has given hospitals the funds to improve their facilities and staff, financial support that incidentally has contributed to the emphasis on high technology care in the U.S. health care system. In addition, by requiring a review of the hospital utilization of Medicare patients, Medicare has handed the doctors on the utilization review committee a tool to educate their colleagues about good medical practices for hospitalized patients. The hospital utilization review committees (described below) were instituted to eliminate unnecessary hospitalization of Medicare patients and thus to reduce costs, but, as Dr. John Knowles has pointed out, "I can give you one example after another where bad utilization has been corrected and where quality has improved."[3]

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[1] National Planning Association, op. cit., p. 35.

[2] U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Nursing Homes; A County and Metropolitan Area Data Book, PHS Publication No. 2043, Section 2 (Rockville, Md.: November 1970); and by the same author, Health Resources Statistics: 1974, DHEW Publication No. (HRA) 75-1509 (Rockville, Md.: 1974), p. 395.

[3] Anne Somers, Health Care in Transition (Chicago, Ill,: Hospital Research and Educational Trust, 1971), p. 59.

Although Medicare can be credited with improvements in the quality and quantity of care received by the elderly, its benefits have accrued largely to our urban population, to the detriment of rural dwellers. Rural and urban people pay the same Medicare premiums, yet Medicare payments for medical care are higher where more doctors are -- in the urban areas. "Through Medicare the rural aged are subsidizing the health care of persons living in more prosperous areas. The sixteen states having the lowest average monthly medical services reimbursement are predominantly rural."[4] In 1972 Medicare enrollees were paying $68 on premiums, yet in some areas in Vermont per capita reimbursements for care were only $54, while in other areas in the same state per capita reimbursements were $164.[1] In effect, Medicare is penalizing those already suffering from inadequate access to medical care.

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[1] U.S. Department of Health, Education, and Welfare, Social Security Administration, National Health Insurance Proposals, DHEW Publication No. (SSA) 11920 (Washington, D.C.: March 1974), p. 181.

[2] Somers, op. cit., p. 59.

[3] Dr. John Knowles, "The Physician in the Decade Ahead," Hospitals, January 1, 1970, p. 58.

[4] Donald Madison and James Bernstein, "Special Problems of Primary Care in Rural Areas," Community Hospitals and the Challenge of Primary Care (New York: Columbia University, Center for Community Health Systems, January 1975), p. 128.

Medicare is even aggravating the geographic maldistribution of doctors in this country. A study by the Association of American Geographers of Washington in 1973 found that Medicare and Medicaid were indirectly fostering a widening gap between doctor-poor inland states and doctor-rich coastal states,[2] and another study showed that these programs were fostering the growth of the physician supply in already well served suburban areas while doing little to attract physicians to underserved inner city areas.[3]

With Medicare and Medicaid, doctors have been able to earn large and growing incomes no matter how abundant the supply of doctors, and there has been no financial pressure on physicians to move to areas with a doctor shortage. Even in doctor-rich areas, physicians have no difficulty attracting patients and earning sizeable fees. Doctors have enjoyed rising incomes for three reasons: 1) Health care providers no longer need to provide free care to those charity patients whose medical bills are now paid by Medicare or Medicaid; 2) more patients can afford to use medical and hospital services; 3) except when price controls were in effect, doctors have been able to raise their fees with impunity since Medicare's payments are based on "customary fees" charged by doctors in a given locality.[4] "One study of the income effects of Medicare/Medicaid on program recipients, non-recipients, and physicians from 1966 to 1968 showed that only 56% of the $14.8 billion spent on these two programs represented gains to recipients. Over the same period physicians averaged net gains of $5,400 to $7,400 over what would have been the case in the absence of the two programs."[1]

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[1] John Wennberg and Alan Gittelsohn, "Small Area Variations in Health Care Delivery," *Science*, December 14, 1973, p. 1106.

[2] Theodore Shabad, "Gap in Physician Linked to U.S. Aid," *New York Times*, November 11, 1973, Section 1, p. 30.

[3] de Vise, *op. cit.*, p. 149.

[4] In determining reimbursement for care given Medicare patients, the government allows established doctors to charge up to the 75th percentile of the prevailing fees in their locality for a given service. The formula prevents excess reimbursement of doctors charging fees well above the norm in a given geographic area, but the formula makes Medicare impotent against a general rise in doctors' fees.

Medicare and Medicaid thus have benefited health care providers as much as they have aided the aged and the needy. And they certainly contributed to the rapid escalation in the late 1960's in the cost of health care, particularly care in a hospital. The average annual rate of inflation in hospital costs, for example, was 6.9% between 1960 and 1966, but shot up to 13.9% between 1966 and 1970.[2] Price controls instituted under the Economic Stabilization Program reined in the galloping inflation in health care costs after 1971, but these costs began to escalate rapidly again when price controls were removed. As health care costs shot up, so too did Medicare expenditures, rising from $5.3 billion in 1968 to $9.5 billion in 1973, a 78% increase![3] Medicare expenditures spiralled to an estimated $12.2 billion in 1974, but two-thirds of the 1974 increase was due to the fact that that year Medicare coverage was extended to disabled persons and persons with chronic kidney disease.[4]

The government has instituted a number of controls designed to curb the rise in hospital costs and the concomitant increase in Medicare expenditures:

- Section 1122 of the 1972 Social Security Amendments requires hospitals to get advance approval for capital expenditures if they are to be reimbursed by Medicare and Medicaid for the costs related to those expenditures. (See "Regulation of Capital Expenditures," above.)

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[1] Amitai Etzioni, "PSRO: A New Way to Manage Our Health System?," *Evaluation*, Volume 1, No. 3 (1973), p. 55.

[2] Karen Davis, "Rising Hospital Costs: Possible Causes and Cures," *Bulletin of the New York Academy of Medicine*, December 1972, p. 1360.

[3] Louise Russell, Blair Bourque, Daniel Bourque, Carol Burke, *Federal Health Spending: 1969-74* (Washington, D.C.: National Planning Association, August 1974), p. 51.

[4] National Planning Association, *op. cit.*, p. 35.

- Hospitals are required to have Utilization Review Committees to determine if Medicare and Medicaid patients require as much expensive hospitalization as their doctors have prescribed. The government is also mandating the creation of PSRO's (Professional Standards Review Organizations) to review the hospital and medical care prescribed for Medicare and Medicaid patients. (See below.)
- In July 1974 HEW issued regulations setting limits on the coverage of costs under Medicare. "The schedule of limits establishes a hospital classification system that takes into account differences in hospital size and geographic location. There are five State groupings, with the States arrayed according to per-capita income. Hospitals in each of the five State groups have been divided between those located in Standard Metropolitan Statistical Areas (urban) and those not in SMSA's (non-urban). These 10 geographical classes have been further divided into 7 bedsize categories, resulting in a total of 70 classes. For each hospital class, cost limits have been set at the 90th percentile of the inpatient general routine per diem costs, plus 10 percent of the class median. (The limits do not apply to costs incurred for special care units and ancillary services.)"[1] The teaching hospitals have been vigorously protesting that this classification system does not take into account the higher costs they incur because of

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[1] U.S. Department of Health, Education, and Welfare Press Release, June 6, 1974, quoted in Medical Care Review, June 1974, p. 722.

their more elaborate facilities, their specialized staffs, their teaching programs, and the higher proportion of their patients with difficult maladies. In partial answer to these protests, the National Health Planning and Resources Development Act passed at the end of 1974 decrees that a uniform accounting and classification system should be developed that does take into account the greater expenses of certain types of hospitals. Despite the new HEW limits on Medicare's coverage of hospitals' costs and despite hospital grumbling about these limits, hospital care costs shot up 13.2% during the nine months after price controls were lifted on April 30, 1974, while the consumer price index only rose 8.5% during that period. The key to controlling hospital costs -- and Medicare expenditures -- does not yet seem to be in the government's hand.

- Medicare is now requiring hospitals and other institutional providers to use the lowest cost drugs which are widely and consistently available.[1] This means that, in most cases, hospitals must use "generic" drugs rather than the "brand name" drugs pushed by the drug companies because of their greater profitability. The drug companies are, of course, protesting that a brand name drug may be of higher quality or more effective than its generic equivalent, though government tests generally dispute this claim.

These programs to control the rise in health care costs indicate how the government can use Medicare as a weapon to regulate health care providers -- just as the doctors predicted when they were fighting the introduction of this program. To date, however, government regulation has sought to curb excesses -- to limit unwarranted enrichment of providers with Medicare funds --, but not to change the basic structure of the

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[1] U.S. Department of Health, Education, and Welfare Press Release, January 20, 1975, quoted in Medical Care Review, February 1975, p. 118.

U.S. health care system. Medicare has not changed the fee-for-service method of paying for health care, has not restricted beneficiaries' freedom to choose their physicians, and, apart from utilization review, has not attempted to interfere with the "free enterprise" method of delivering medical care. The Social Security Administration, in administering Medicare, has gone to great lengths "to avoid disturbing pre-existing institutional relationships, to involve the maximum feasible number of non-governmental units in administration, and to permit virtually complete free choice to all beneficiaries."[1]

MEDICAID

Medicaid was created by the same 1965 Social Security Act that brought Medicare into existence. Medicaid was to help pay the health care costs of the poor and the medically indigent of all ages. Unlike Medicare, Medicaid is not a federal program. Each state has its own Medicaid program and determines its own eligibility requirements and its own Medicaid benefits, although the federal government sets some benefit and eligibility standards. Each state finances 17% to 50% of its own Medicaid program while the remaining financial support comes from the federal government. The federal government pays a larger percentage of Medicaid costs in states with a low per capita income. However, the federal contribution also depends on the size of the state's Medicaid program, and, since the larger, wealthier states tend to have the better Medicaid programs, it is they that receive the bigger dollar contributions from the federal government. During fiscal 1969, for example, over 40% of all Federal public assistance medical benefits went to only two states, New York and California, while these two comparatively wealthy states, through the contributions of their residents to federal tax revenues, paid only 23% of the total federal contribution to Medicaid.[2] Both the federal and the state financing of Medicaid are paid for out of general tax revenues. Therefore, if revenues came from progressive taxes and if Medicaid benefits were focused on those with the greatest need, Medicaid should, in effect, be taking taxes from the wealthier citizens to help the poorer ones. In practice, however, the poorer states have been paying more of Medicaid's costs than they have been receiving in benefits.

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[1] Somers, op. cit., p. 60.

[2] U.S. Department of Health, Education, and Welfare,..., Comparison of Cost and Benefit Incidence..., op. cit., p. 17.

While Medicare has proved to be expensive but popular, Medicaid is not only expensive but also highly unpopular.[1] Unlike Medicare, no actuarial studies were done on predicted Medicaid use, and Medicaid costs to both the federal government and the states ballooned far faster than ever predicted. Aghast at Medicaid costs, states have reduced benefits and raised eligibility requirements. In some states now only those on welfare are eligible for Medicaid, and the medically indigent have been excluded. (Medically indigent are those people who can support themselves but cannot afford high health care costs.) In some states -- Massachusetts, for example, -- some citizens are worse off than they were before Medicaid, for free care is no longer so readily available as it was in pre-Medicaid days. Public assistance and census statistics in 1971 indicated that 46% of the 35.5 million poor and near poor in this country have no Medicaid coverage.[2] Yet the federal government is considering putting ceilings on its contribution to states' Medicaid programs.

The unexpectedly steep costs of Medicaid have been due not only to greater utilization than expected and rising health care costs but unfortunately also to abuses. In California, for example, it was found that profit-making companies siphoned off for their administrative expenses and profits more than half the state and federal Medicaid funds they received to provide prepaid health care for the poor.[1] In New York, Medicaid paid Health Insurance Plan of Greater New York (HIP) higher premiums for Medicaid enrollees than those paid by regular HIP subscribers, on the theory that Medicaid patients would require more health services. In fact, however, Medicaid subscribers used only a third as many services in part because HIP failed to educate them about the plan and the services offered.[2]

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[1] Somers, op. cit., pp. 58 and 63.

[2] Arthur Berarducci, "Toward Economic Self-Sufficiency," Hospitals, March 1, 1975, p. 63.

Medicaid has not only been subject to abuses, but, with its wide variations among states, it also has been far less effective than Medicare's national program in getting health services to the needy. In 1969, for example, Congress mandated that states set up, under Medicaid, a health screening and treatment program for poor children. By 1975, fewer than three million of the thirteen million eligible children had received the required care, and the federal government was threatening to withhold 1% of the federal payments for Aid to Families with Dependent Children from those states not complying with the child health regulations. Seven states were affected, Hawaii, Indiana, Minnesota, Montana, New Mexico, North Dakota, and Pennsylvania, most of which were cited for failure to notify those eligible that the services were available and that parents could receive transportation and baby-sitting services if needed to take advantage of the program.[3]

Medicaid has helped finance some neighborhood health centers. Created under various federal programs to improve the availability of medical care, these centers generally have many patients whose care in the neighborhood health center can be paid for by Medicaid or Medicare. If Medicaid were expanded to provide more benefits and to cover the near poor now unable to pay the full cost of their care in the centers (or if National Health Insurance were instituted), these centers might become financially self-supporting.

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[1] Stuart Auerbach, "California Health Care Plans Faulted on Profits, Costs," Washington Post, March 14, 1975, quoted in Medical Care Review, April 1975, p. 373.

[2] Health Policy Advisory Center, "Crippled HIP," Health/PAC Bulletin, October 1972, pp. 16-17.

[3] "Poor Children Still in Need of Health Care," New York Times, June 8, 1975, p. E-3.

Medicaid can also help the elderly poor who require nursing home care, for Medicare only pays for 100 days in a nursing home. In sum, Medicaid has helped pay for some health care for the poor, but its benefits and the population it covers have been far too small to meet the health care needs of our medically indigent.

NATIONAL HEALTH INSURANCE (NHI)

The inadequate coverage Medicaid has provided the poor and the near poor is one reason for the growing pressure for some sort of National Health Insurance (NHI). But rising health care costs and inadequate insurance coverage for medical catastrophes have created support for National Health Insurance among the middle class as well as the poor. The various proposals for National Health Insurance are discussed in Chapter III, but here it should be mentioned that the character of many current federal health programs is being shaped by the prospect of some sort of National Health Insurance in the future. The government is particularly concerned that NHI might cause a rapid escalation in health care costs, just as Medicare did. The National Health Planning and Resources Development Act of 1974 is designed to get in place effective comprehensive health planning bodies, reasonable controls over capital expenditures, and even some sort of rate regulation, which together hopefully will prevent an excessive rise in costs when NHI makes health care more readily available to people at all income levels. States are being pushed into passing Certificate of Need laws. Medicare regulations are being tightened up. The government has mandated the creation of PSRO's (Professional Standards Review Organizations) in hopes of curbing unwarranted or inappropriate use of institutional health services. Increasing efforts are being made to get doctors to underserved areas where the demand for health care is likely to burgeon if NHI is instituted.

A study done by the Rand Corporation predicted that, because there are presently fewer financial barriers to hospital care than to ambulatory care, National Health Insurance is likely to create a relatively small increase in the demand for hospital care but a quantum leap in the demand for ambulatory care.[1] The resulting strains on the health care delivery system could lead to a substantial rise in doctors' fees, long waiting times for appointments, and/or less physician time per patient. Since current government regulatory efforts seem to be directed more toward hospitals than toward doctors, one wonders if, in fact, adequate preparation is being made for the sudden rise in the demand for ambulatory care likely to be triggered by National Health Insurance. In its precautionary measures, the government may be unduly influenced by its experience with Medicare where the biggest impact was on hospital utilization.

REGULATION OF HEALTH SERVICE COSTS AND UTILIZATION

Alarm over escalating hospital costs has stimulated a number of programs to regulate either the use or the cost of expensive hospital services. Hospitals are now required to have Utilization Review Committees to ensure that patients are only hospitalized when necessary and for as long as necessary. The federal government is pressing doctors to set up Professional Standards Review Organizations (PSRO's) to monitor the adequacy and the necessity of the care given patients in health institutions. Some states regulate the rates hospitals can charge Blue Cross or Medicaid. Health insurance is also regulated in every state, and a growing number of states are seeking to regulate malpractice insurance.

UTILIZATION REVIEW COMMITTEES AND PSRO'S

Review of the care provided in hospitals began long before the government became concerned about health care costs. In 1949 the American College of Surgeons established the concept of tissue committees, which examine human tissue removed during surgery to see whether the operation was justified. In 1953 the Joint Commission on Accreditation of Hospitals enunciated the concept of medical audits to measure the quality of care provided in hospitals (in terms of such things as the rate of postoperative complications), and in 1974 the Joint Commission decreed that hospitals must have an acceptable medical audit procedure in order to be accredited. Both the medical audits and the tissue committees were designed to ensure the quality of care, not to control the cost of that care.

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[1] Joseph Newhouse, Charles Phelps, William Schwartz, Policy Options and the Impact of National Health Insurance (Santa Monica, Calif.: Rand, June 1974).

When Medicare was established in 1965, the law mandated that hospitals have a utilization review plan in order to be eligible to participate in the Medicare program. Hospitals set up Utilization Review Committees, staffed by doctors, to determine whether patients actually required hospitalization and whether patients were being kept in the hospital longer than was medically necessary. These committees undoubtedly curbed some unnecessary hospitalization, but they tended to be lenient about ordering the discharge of a colleague's patient. Utilization review requirements were strengthened by a new regulation that went into effect February 1, 1975, requiring that the hospitalization of patients be reviewed by nurses and technicians the first day after admission, with a final decision made on the second day by groups of doctors. Another review is required if the patient is still in the hospital after the deadline for his discharge set in the earlier review.[1] In many states Blue Cross also requires that the patients it insures have their hospital stays reviewed by Utilization Review Committees. These committees are designed primarily to prevent the use of expensive hospital care when satisfactory care could be provided in a less costly fashion on an outpatient basis or in an extended care facility. Utilization review procedures are thus designed as a cost-control mechanism, not one for quality control. They also generally have been ineffectual.[2]

The Social Security Amendments of 1972 created a stronger tool for the control of both costs and quality of care: Professional Standards Review Organizations (PSRO's). By January 1, 1976 each of the 203 areas into which the country was divided was to have a PSRO to review the care provided Medicare/Medicaid patients to ensure that "the services for which payment may be made under the Social Security Act will conform to appropriate professional standards and that payment for such services will be made -- (1) only when, and to the extent, medically necessary..." and "(2) in the case of services provided...on an inpatient basis, only when and for such period as such services cannot...effectively be provided on an outpatient basis or more economically in a health care facility of a different type..."[1] PSRO's are to determine which services are necessary and therefore reimbursable, but they are not concerned with the reasonableness of the charges for those services.

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[1] "H.E.W. Sets Policy to Police Doctors," *New York Times*, November 29, 1974.

[2] "Peer Review Now: PSRO at Work," *Modern Health Care*, January 1975, p. 50.

PRSO's are to be non-profit associations of physicians, open to and representative of the physicians in the area, but, if the physicians in an area do not create a satisfactory PSRO by the deadline, the Secretary of HEW may designate some other public or non-profit organization to serve as the PSRO. HEW will contract with a PSRO to serve on a conditional basis for 24 months, and thereafter HEW will renew PSRO contracts annually if the PSRO is performing satisfactorily. PSRO's are to be funded by HEW, and their activities are to be reviewed by Statewide Professional Standards Review Councils and a National Professional Standards Review Council.

PSRO's are initially to review only care provided in health care institutions (hospitals, nursing homes, etc.) and will not in the beginning review care delivered in a physician's office, clinic, or other ambulatory setting unless the doctors in a PSRO request that it do so. Unlike Utilization Review Committees, which operate in single hospitals, PSRO's monitor the care provided in all institutions in their area. PSRO's can accept the review performed by the hospital-based Utilization Review Committees whenever the PSRO determines that such review is effective. PSRO's, however, are to be concerned with more than length of hospital stays. Each PSRO is to draw up standard procedures -- or a range of acceptable procedures -- to be followed for various diagnoses with various types of patients. It is recognized that there will be instances where a physician's clinical judgment will require him to deviate from the established standards and criteria, and, if the judgment is sound, the PSRO will not object to the deviation. If the PSRO should disapprove of a proposed procedure or service or an extension of stay, the government would not pay for the services. However, the physician concerned could appeal the PSRO's determination to the Statewide Professional Standards Review Council and to HEW. In cases of extreme or repeated violations of PSRO standards, the doctor or provider can be fined up to $5,000.

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[1] P.L. 92-602, Section 249F, Subsection 1152.

The standards and criteria established by each PSRO are to reflect acceptable patterns of practice in the PSRO's area and will take into account the professional personnel, facilities, and equipment available in the area. PSRO guidelines are expected to be modified periodically as experience is gained and as new developments in medicine occur. The National Professional Standards Review Council must review PSRO norms that are significantly different from professionally developed regional norms. Hopefully this will reduce some of the marked variations from area to area in such things as average length of stay. And the fact that each PSRO monitors all the institutional care in its area should eliminate some differences in the care provided in different institutions.

PSRO's will compile up-to-date profiles on individual physicians to spot doctors who overprescribe certain drugs, overutilize certain procedures, or otherwise fail to meet stipulated guidelines.[1] In two existing review organizations (CHAP in Sacramento and HAPP in New Mexico), a physician advisor reviews all requests for admissions or extensions made by a limited number of practitioners put on "full review" because of many suspect or questionable admissions or billings. The names of the doctors on full review are kept from the public, but the doctors themselves are told when and why they're listed.[2]

PSRO's are supposed to serve an educational as well as a control function. Physicians serving on peer review committees are forced to think in terms of acceptable norms of professional practice for given types of medical conditions, and this influences their day-by-day behavior as practitioners.[1] Issuing guidelines may enable some doctors to identify and correct their own deficiencies. Publication of norms of diagnosis and treatment can alert physicians to alternate or new methods of care. The conduct of medical care evaluation studies and prospective profile analysis may result in the identification of unsuspected problems, and this in turn should lead to analyses of causes and the development of corrective programs.[2] In sum, PSRO's should concern themselves not just with the treatment prescribed for individuals but with patterns of care.

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[1] "PSRO: A Report," Health Care Today, January-February 1974, p. 3.

[2] "Peer Review Now: PSRO at Work," Modern Health Care, January 1975, p. 51.

PSRO's are designed to eliminate not only unnecessary care but also poor care. The doctors protest, however, that the PSRO's may also stifle innovation. Restricted by PSRO guidelines, doctors will find it difficult to experiment with new techniques or procedures -- though, once a new technique is added to PSRO guidelines, all the doctors concerned will be made aware of the innovation. PSRO's will restrict doctors' independence, treasured by these individualistic entrepreneurs. PSRO's will inhibit a doctor's ability to use his own judgement in a field that is still as much art as science. While cutting costs by eliminating unnecessary services, PSRO's will increase costs because of the expensive review procedures. When the Utah Professional Review Organization set up a utilization review program, the average length of stay was reduced from 5 to 4.5 days, and there was a slight decrease in admissions compared to a control group, but this decrease in utilization was realized at a cost of $9 per hospital admission.[3]

PSRO's were created in response to increasing indications that a significant amount of unnecessary (or inappropriate) health care is provided in this country. When the need for elective operations recommended to a group of union members was re-examined by board-certified specialists, approximately 24% of all procedures recommended were not confirmed.[1] Some pediatricians suggest that over 90% of the tonsillectomies performed on children are unnecessary.[2] Some studies indicate that 10% to 20% of the patients in a "typical" community hospital on an "average" day do not need to be there.[3] The peer review system of the Kaiser-Permanente Plan in Northern California found "significant problems" in one of every eight clinic charts examined and in 95% of the hospital records reviewed.[4] Existing peer review systems in individual hospitals -- Utilization Review Committees and Tissue Committees -- have generally not worked in the past, as most doctors would agree.[5] Clearly there is a need for stronger controls over the delivery of health care.

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[1] Katherine Bauer and Paul Denson, "Some Issues in the Incentive Reimbursement Approach to Cost Containment: An Overview," Medical Care Review, January 1974. p. 96.

[2] William Jessee, William Munier, Jonathan Fielding and Michael Goran, "PSRO: An Educational Force for Improving Quality of Care," New England Journal of Medicine, March 27, 1975, p. 670.

[3] Alan Nelson, "Relation Between Quality Assessment and Utilization Review in a Functioning PSRO," New England Journal of Medicine, March 27, 1975, p. 675.

But the doctors are dragging their feet on establishing PSRO's, and the system must have the cooperation of at least the leaders in the medical profession. Only the medical profession can ensure that PSRO guidelines are reasonable ones and that sufficient deviations from the guidelines are allowed. The profession, however, has traditionally resisted any serious efforts to monitor its work. Physicians' self-policing in the past has not been too successful. Conceivably, doctors' dread of malpractice suits could be used to lure them into cooperating with the PSRO program: If a doctor followed the procedures prescribed by his PSRO, he would have a weapon to defend himself from charges of inadequate care.

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[1] Eugene McCarthy and Geraldine Widmer, "Effects of Screening by Consultants on Recommended Elective Surgical Procedures," New England Journal of Medicine, December 19, 1974, pp. 1331-1335.

[2] Howard Hiatt, "Protecting the Medical Commons: Who is Responsible?," New England Journal of Medicine, July 31, 1975, p. 237.

[3] William Dowling, "Prospective Reimbursement of Hospitals," Inquiry, September 1974, p. 171.

[4] Quotation from Dr. Leonard Rubin, Coordinator of Medical Education for the Kaiser-Permanente Plan in: Nancy Hicks, "Nation's Doctors Move to Police Medical Care," New York Times, October 28, 1973, p. 1.

[5] Hicks, op. cit.; and "Peer Review Now: PSRO at work," Modern Health Care, January 1975, p. 50.

RATE REGULATION BY THE GOVERNMENT

As of July 1974, eight states had public rate setting agencies that establish in advance the rates at which hospitals will be reimbursed for the care provided certain groups of patients.[1] These rate setting agencies use prospective rather than retrospective reimbursement; that is, rather than reimbursing hospitals on the basis of costs incurred in the past, reimbursement is determined by a rate schedule set in advance on the basis of cost projections. Although prospective reimbursement approaches vary, they share certain common characteristics: Rate decisions are not left to the exclusive discretion of the providers; future costs and revenue requirements are estimated in advance; retrospective adjustments are limited to defined factors and ranges; there is a risk/incentive factor, that is, a provider whose actual costs are more than the allowed amount above projected costs must pay the difference out of its own funds, while the provider whose actual costs are below projections may pocket at least a portion of the difference.[2]

Six of the eight states which set prospective rates for hospitals also do so for skilled nursing homes, and in four other states the state Medicaid agencies set prospective rates for nursing homes. The state-set rates apply to all purchasers of hospital care only in Maryland; in other states they apply only to certain groups of patients: those covered by Medicaid (5 states), those covered by other state programs (3 states), those covered by Blue Cross (7 states), and/or those covered by private insurance or paying their own bills (3 states).[3]

In 16 states without a public rate-setting body, Blue Cross plans sponsor prospective reimbursement systems, although in many cases these systems cover only a portion of the hospitals in the state. Two states have both a state and a Blue Cross prospective rate-setting system. In two other states, non-profit corporations established under the sponsorship of the state hospital associations set prospective rates on a voluntary basis. Thus, as of July 1974, there were 26 prospective reimbursement systems in existence in 22 states, and these systems involved about 25% of the country's hospitals. Ten other rate review programs had been proposed, and, if these are actually established, 55% of the nation's hospitals, housing 65% of the beds, would be involved in prospective rate review.[1] Blue Cross rate-setting and cost control systems are discussed further in Chapter III.

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[1] The eight states with public rate-setting bodies as of July 1974 are Arizona, Colorado, Connecticut, Maryland, Massachusetts, New Jersey, New York, and Rhode Island. Six other states are considering setting up public rate setting agencies.

[2] U.S. Department of Health, Education and Welfare, Health Resources Administration, An Analysis of State and Regional Health Regulations: Health Resources Studies, DHEW Publication No. (HRA) 75-611, based on a study by Lewin Associates, Inc., September 16, 1974.

[3] Ibid., pp. 3-4.

State rate review efforts are generally coordinated with administration of the state's Certificate of Need law, which requires advance approval for capital expenditures. All eight states with a state rate-setting body have a Certificate of Need law, sometimes administered by the same agency. Where there are two separate agencies, the two generally coordinate their operations, although one rate review body requires a separate review of proposed capital expenditures in addition to that done under the Certificate of Need law. Thus, a rate-setting agency might allow reimbursement for costs associated with a capital expenditure not approved under Certificate of Need procedures. On the other hand, a rate-setting body can deny reimbursement for operating as well as capital costs connected with unapproved expenditures and thus exercise a stronger sanction than is imposed by Certificate of Need laws. Also a rate review agency could deny reimbursement for existing services it considers unnecessary, while Certificate of Need laws do not encompass existing facilities. In short, rate-setting can be a stronger weapon for cost containment than Certificate of Need procedures.

As was indicated in the section of this chapter dealing with Medicare, the federal government is developing a system to set limits on the rates at which hospitals are reimbursed for the care given Medicare patients. At present different limits are set for hospitals of different sizes in different geographic areas. The National Health Planning and Resources Development Act of 1974 mandates that a more sophisticated rate-setting system be developed that takes into account cost factors beyond the size and location of hospitals. This system may set the stage for federal regulation of all hospital rates if National Health Insurance is instituted.

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[1] U.S. Department of Health, Education, and Welfare, Health Resources Administration, An Analysis of State and Regional Health Regulations: Health Resources Studies, DHEW Publication No. (HRA) 75-611, based on a study by Lewin Associates, Inc., September 16, 1974.

Federal efforts to regulate rates are focused on classes of institutions while state rate-setting bodies tend to focus on the projected budgets of individual institutions. State (and Blue Cross) regulators are concerned about whether an institution's costs are rising much more rapidly than those of other comparable facilities, but they tend to negotiate prospective rates on an institution-by-institution basis rather than on a class basis.

If the federal government develops an effective system for analyzing the different levels of reasonable costs in different types of institutions, the rate regulators might elect to wield an additional weapon in the battle against rising costs. Limits might be set on the total reimbursement allowed for certain kinds of treatment, and these limits might be set at a low enough level so that a patient requiring a simple operation such as a tonsillectomy could not go to an expensive teaching hospital for the operation if he wanted to have his full costs reimbursed; he would have to use a community hospital where the costs are lower because the hospital does not have to finance such elaborate facilities, such a specialized staff, or an expensive teaching program. Obviously, if such limits were ever set, allowances would have to be made for special situations where the condition of the patient warranted sending him to a teaching hospital even for a simple operation.

Such limits would be an extension of other cost-cutting programs already in operation, such as the utilization review mandated by Medicare to prevent unnecessary use of expensive hospital services or the requirement in some states that health insurance provide benefits that will encourage the use of outpatient rather than inpatient care whenever feasible. If limits should ever be put on the reimbursement allowed for various procedures, hospitals would be pushed into greater specialization by level of care, with some institutions focusing on the more difficult health problems and others on the simpler ones. In recent years, there has been some blurring of the distinction between teaching and community hospitals, as the boom psychology pervading the health system encouraged community hospitals to add more and more specialized equipment for treating patients with complex maladies, while the teaching hospitals continued to devote at least a portion of their beds to patients with relatively minor complaints. Utilization review procedures are already sharpening the distinction between acute care beds and extended care facilities, and further controls on reimbursement may lead to a more clear cut dividing line between different levels of acute care.

STATE REGULATION OF HEALTH INSURANCE[1]

Every state regulates health insurance. These regulations take various forms:

- All the states seek to protect consumers from fraud and from loss of benefits due to carrier insolvency. Every state has legislation to prevent the sale of unreviewed policies by unauthorized agents and to regulate marketing and advertising practices. States set requirements for initial capitalization of carriers, impose reserve requirements, and create insolvency funds.
- Virtually all the states have authority to insure that the language in health insurance policies is clear to laymen.
- Some states specify the minimum coverage that must be provided by different types of health insurance or mandate changes in benefits to encourage lower cost care.

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[1] The information in this section is based on U.S. Department of Health, Education, and Welfare..., An Analysis of State...Health Regulations..., op. cit., pp. 15-17.

- Some states review the appropriateness of the premiums charged for commercial health insurance and/or Blue Cross insurance.
- Nineteen states regulate the overall administrative or selling expenses of non-profit health insurance plans.
- A few states have regulations seeking to open enrollment in Blue Cross/Blue Shield plans to more people. Twenty-six states have eliminated the rights of health insurers to terminate the coverage of high risk clients before the renewal date.

The health insurance plans being regulated by the states and the impact of these plans on the health care system are discussed in Chapter III.

One state -- Rhode Island -- not only regulates private health insurance but has instituted a state health insurance program for medical catastrophes. The individual is expected to pay for his normal medical expenses either out of his pocket or through private health insurance, but medical bills above a certain amount are paid by the state out of general tax revenues. The Rhode Island catastrophic insurance program is, however, regressive, since those with major medical insurance only have to pay $500 in medical bills while others -- usually the poorer citizens -- must pay $5,000 before the state's insurance program takes over.

GOVERNMENT REGULATION OF MALPRACTICE INSURANCE

Malpractice insurance has suddenly become a hotly debated issue in this country. In recent years, malpractice insurance rates have skyrocketed as new legal precedents and the generosity of damage-suit jurors encouraged huge claims against allegedly incompetent or careless doctors, hospitals, and other providers. Malpractice suits are being brought with increasing frequency: In 1969 St. Paul Fire and Marine Insurance Company had one claim pending for every 23 doctors it insured; by 1974 it was processing one claim for every 10 doctors.[1] More than two-thirds of the malpractice cases that get to court are decided in the doctor's favor, but, when a doctor loses his case, the award he has to pay may exceed $1 million. Hospitals as well as doctors have been hit by increasing malpractice claims against them. By 1975, malpractice insurance was costing hospitals $860 a bed a year.[1]

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[1] Tom Herman and Barry Kramer, "Medical Alert: States Act to Avert 'Malpractice Crisis,' Keep Doctors on Job," Wall Street Journal, May 6, 1975, p. 1.

There are a multitude of reasons for the burgeoning of malpractice claims:

- Patients expect far more from health care providers than they did in earlier times. As a 1973 HEW study reported, "During the 19th century and the first two or three decades of the 20th,...adverse results of treatment more often than not were either regarded as the natural outcome of disease or attributed to 'the will of God.'"[2]

- Warm doctor-patient relationships have suffered with the growing specialization in medicine and with the increasing mobility of our population. Rather than regarding doctors as trusted family friends, patients now tend to resent their wealth and social status. Our increasingly well educated population is also less inclined to be awed by the wisdom and learning of physicians.

- Doctors have been lax about policing the competence of their colleagues. Negligence and incompetence can trigger malpractice claims.

- Advanced diagnostic and therapeutic procedures are often risky. The doctors most frequently sued for malpractice are often the best trained specialists who see only seriously ill patients. Teaching hospitals that tackle the toughest medical problems often have to pay the highest insurance rates.

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[1] Statistics from the American Hospital Association quoted in Lawrence Altman, "Malpractice Rates Drive Up Doctor Fees," New York Times, July 27, 1975, p. 24.

[2] Herman and Kramer, op. cit.

- Some patients are collecting damages for medical accidents that involve little more than bad luck or for medical problems that are natural progressions of the original malady rather than the product of poor medical care. Or patients are given awards for damages resulting from treatment which was considered to be proper at the time it was given but which later research proved to be dangerous.
- The United States has a tradition of compensating people for "pain and suffering". England and Canada, which share our common law heritage but not this tradition, are reportedly not seriously affected by rising malpractice litigation.[1]
- Trial lawyers handling malpractice claims are paid with contingency fees, generally 30% to 40% of the settlement and occasionally as high as 50%, but nothing if a client loses. This system discourages lawyers from taking cases they have little hope of winning, but it also encourages them to seek huge awards.

With soaring malpractice awards, the insurance companies have been raising their premiums 200-300% a year, and the doctors and hospitals have been passing on these skyrocketing costs to their patients. Now a crisis has been reached. Refusing to pay such high premiums, some doctors have gone on strike and are caring only for patients with emergency needs. Some doctors are retiring or switching to specialties or geographic areas where malpractice insurance premiums are lower. Some states are refusing to allow such vast increases in premiums. Insurance companies are threatening to get out of the malpractice business.

States are increasingly stepping into the breach, seeking to regulate malpractice awards and insurance:

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[1] Lawrence Altman, "Malpractice Rates Drive Up Doctor Fees," New York Times, July 27, 1975, p. 24.

- Some states have passed laws that shorten the statute of limitations for malpractice claims.
- Some states are putting a ceiling on damages against physicians.
- Some states are moving to reduce the role of juries in malpractice litigation. Indiana has created a physicians' panel to screen cases before they reach court. Michigan has passed a bill promoting arbitration over the traditional jury system for settling malpractice claims.
- Some states are requiring insurance companies to pool together to share the risk of writing medical malpractice coverage. This is a way of ensuring that malpractice insurance will continue to be available.
- Some states are considering limiting plaintiff attorney fees in malpractice cases.

Senator Nelson has proposed a federally supported malpractice insurance program for all claims above $25,000, which would take the risk of all large suits out of the hands of both primary insurance carriers and reinsurance carriers.[1] To be eligible for this program, states would have to set up non-binding arbitration panels, and health care providers would have to agree to PSRO review of all medical treatment. HEW, however, is opposed to federal action on the malpractice crisis on the grounds that the situation varies so widely from state to state that a federal law is impractical.

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[1] William Curran, "The Malpractice Insurance Crisis: Short-Term and Long-Term Solutions," New England Journal of Medicine, July 3, 1975, p. 25.

IMPLICATIONS FOR HEALTH CARE PROVIDERS

As government regulations increase and as the voice of consumers grows louder, health care providers will need to develop greater political sensitivity and greater concern about costs.

Government at all levels has become an increasingly important factor in the health care system. In the years after World War II, federal health programs were primarily focused on research and hospital construction, both of which pushed the U.S. health care system into ever greater emphasis on sophisticated and expensive clinical technology. The thrust of governme[illegible] endeavors now is quite different, with the following five goals as the p[illegible]cipal targets:

1. Reducing financial barriers to health care through:
    - Medicare;
    - Medicaid;
    - Proposals for National Health Insurance;
    - State regulation of health insurance.
2. Cutting health care costs by means of:
    - PSRO's to eliminate unnecessary or inappropriate use of health resources;
    - Certificate of Need laws to prevent the construction of unnecessary health facilities;
    - National health planning (Health Systems Agencies) to coordinate the planning of health care providers and to focus expansion efforts in areas where health benefits will be greatest in relation to the costs;
    - HMO's, which seem to promote more efficient and economic delivery of health care;
    - Restrictions on Medicare reimbursements;
    - Rate regulation.
3. Putting greater emphasis on primary care and increasing its availability through:
    - Neighborhood and Migrant Health Centers, which make primary care available to those inadequately served by private doctors;

- Community Mental Health Centers, which make psychiatric care available in local communities and at a low cost;
- National Health Service Corps, which assigns doctors to underserved areas;
- HMO's, which emphasize primary care and which the government is trying to promote in areas now underserved by private doctors;
- Switching Hill-Burton construction funds from inpatient to outpatient facilities;
- Reducing research grants;
- Increasing grants to medical schools whose graduates go into primary care;
- Increasing overall the supply of doctors and other health professionals by grants to schools and loans to students;
- Encouraging health professionals to go into underserved areas by granting loan forgiveness to those who do;
- Proposing good coverage of primary care in National Health Insurance.

4. Providing better preventive care through:

- Health Systems Agencies, which are supposed to concern themselves with environmental and occupational exposure factors affecting health;
- The Occupational Safety and Health Administration (OSHA) program to protect us from occupational hazards;
- The Environmental Protection Agency, which seeks to protect us from environmental hazards;
- The Food and Drug Administration, whose mission is to protect us from harmful drugs and foods;
- The Consumer Product Safety Commission's efforts to protect us from dangerous products;
- The National Center for Disease Control, which seeks to prevent the spread of contagious diseases;
- The food stamp program, which seeks to improve the diet of the poor;
- Housing programs to improve the living conditions of the poor;

- Banning cigarette ads on TV.[1]

5. Improving the quality of care through:

   - PSRO's, which are not only to prevent unnecessary care but also to ensure that necessary care is provided in an appropriate fashion;
   - Licensing health professionals and instituting new requirements for periodic relicensing and/or continuing education of doctors;
   - Research programs.

These five goals are very much interrelated. As efforts to reduce the financial barriers to health care have increased the share of the nation's health bills paid with government funds, the government has become alarmed by the escalation in health care costs. One means of reducing health care costs is to increase the emphasis on primary and preventive care. Access to primary care is being restricted not only by financial barriers but also by the inadequate availability of primary care providers.

In pursuit of these goals, the government is seeking incremental changes, not any basic restructuring of the U.S. health care system. It is not seeking to eliminate fee-for-service care, though it hopes to offer citizens the alternative of prepaid care. Government programs are seeking to enlarge, not restrict, patients' freedom to choose doctors and hospitals. Doctors are still free to practice where and what they want, despite government programs to remedy the maldistribution of physicians. Hospitals and other providers continue to enjoy great autonomy, though efforts are being made to improve coordination between providers and to institute sufficient controls to ensure quality care at not unreasonable cost. Health planning is beginning, but most planning authority will be at the local, not the national level, and the power given planning bodies is extremely limited. Although government regulation is increasing, we have nothing resembling the centralized government control that exists in such countries as England and Sweden.

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[1] HEW's Forward Plan for Health FY 1977-1981 goes further and suggests that, to reduce tobacco and alcohol consumption, price supports could be cut for tobacco farmers and restrictions could be placed on alcoholic beverage ads. However, lobbies being what they are, these suggestions are unlikely to be enacted.

Basically the government is attempting to fill gaps in the existing health care system without allowing health care to bankrupt the nation. And there's the rub. It may become increasingly difficult to keep health care costs down and at the same time to provide quality health care equitably to the entire population. In order to provide adequate primary care to everyone, we may need to restrict expenditures on the technologically sophisticated care so dear to doctors and hospitals and, indeed, to patients. In order to provide medical care to all segments of our population, we may need to provide expensive financial incentives to get doctors to underserved areas or limit physicians' freedom to choose where and what they practice. In order to make the delivery of health care more efficient and thus less costly, we may need to restrict the independence providers now enjoy. Even if we seek to preserve our free enterprise health care system, it can no longer be so free wheeling or so free spending as in days of yore.

Health care providers will have to recognize the changed atmosphere in which they must operate. Some moves are already being made by providers in line with the goals sought by the government. These efforts are listed in Exhibit II-3 and are discussed in greater detail in later sections of the book.

But providers will need to accord greater recognition to the national priority being given to reining in cost escalation and providing adequate primary care to all segments of the population. Regulation is here to stay, but, by seeking to meet legitimate public demands, providers can reduce the pressure for ever growing regulation. And, with political astuteness, providers can help shape those regulations to ensure they do the minimum damage to the virtues our health care system does have. More effort will have to be made to cultivate the good will of political powers, not only in the regulatory agencies but also in the legislative bodies. More attention will have to be paid to the needs, desires, and sensitivities of ordinary citizens, who not only have the ear of legislators and regulators but who also are increasingly sitting on comprehensive health planning agencies, hospital boards of trustees, and the like. Health care providers must erect antennae to tune into the world outside their doors.

Exhibit II-3

THE GOALS OF GOVERNMENT PROGRAMS AND THE MATCHING EFFORTS OF HEALTH CARE PROVIDERS

Goal	Government Programs	Chapter & Pages Where Discussed	Efforts by Health Care Providers	Chapter & Pages Where Discussed
1. Reducing financial barriers to health care.	• Medicare	II-51	• Growth of private health insurance both in persons covered and in benefits provided	III-34, 40
	• Medicaid	II-61		
	• National Health Insurance	III-61		
	• State regulation of health insurance	II-74		
2. Cutting health care costs.	• PSRO's	II-66	• Medical Care Foundations	III-93
	• Certificate of Need laws	II-33	• Better administration of health facilities	IV-76
	• National Health Planning (HSA's)	II-38	• Better planning by institutions	III-26
	• HMO's	III-71	• Prepaid group practices	III-72
	• Restrictions on Medicare reimbursements	II-58	• Sharing services and facilities	IV-29
	• Rate regulation	II-71	• Blue Cross cost controls	III-50
3. Putting greater emphasis on primary care and increasing its availability.	• Neighborhood & Migrant Health Centers	II-45 IV-11	• Reorganizing hospital outpatient services	IV-10
	• Community Mental Health Centers	II-46 IV-12	• Psychiatric units in short-term hospitals	IV-22
	• National Health Service Corps	II-19	• Geriatric day care centers	IV-24
	• HMO's	III-71	• Prepaid groups practices	III-72
	• Giving construction funds to outpatient rather than inpatient facilities	II-27	• Developing family practice residency programs	IV-105
	• Reducing research grants	II-13	• Increased use of foreign medical graduates	IV-87
	• Increasing grants to medical schools graduating primary care doctors	II-17	• Expansion of medical schools	II-16 IV-82
	• Forgiving loans given doctors going into shortage areas	II-16	• Increased use of physician assistants	IV-113
	• Providing good coverage of primary care in National Health Insurance	III-65	• Increased coverage of ambulatory care by private health insurance	III-46
4. Providing better preventive care.	• National Health Planning (HSA's)	II-38	• American Health Foundation	I-53 IV-4
	• Occupational Safety & Health Administration	II-10		
	• Environmental Protection Agency	II-10		
	• Food & Drug Administration	II-9		
	• Consumer Products Safety Commission	II-10		
	• National Center for Disease Control	II-9		
	• Food stamp program	I-52		
	• Banning cigarette ads on TV	I-53		
5. Improving the quality of care	• PSRO's	II-66	• Medical Care Foundations	III-93
	• Licensing & relicensing health professionals	II-20	• Specialty Boards	IV-95
			• Greater influence of medical schools	IV-52
	• Research grants	II-11	• Research	I-30
			• Adding equipment	I-32

CHAPTER III

TRENDS IN HEALTH CARE COSTS AND METHODS OF PAYMENTS

For the past decade or two the health care system has been on a spending spree. Health care expenditures have soared, both in dollars and as a percent of the Gross National Product. The ballooning of health expenditures can be attributed to a multitude of factors, including the changing characteristics of our population, the growth of more sophisticated medical technology, government programs such as Medicare, and the spread of health insurance. Since health care expenditures cannot grow forever at such a frenetic pace without devouring the economy, pressures are being generated inside the health care system as well as outside of it to rein in the galloping inflation in health care costs. One possible means of doing this is the development of Health Maintenance Organizations (HMO's), which provide comprehensive care for a fixed monthly fee and thus are a radical departure from our customary fractionalized, fee-for-service system of delivering care.

OVERALL TRENDS IN HEALTH CARE EXPENDITURES AND COSTS

Health care is consuming an ever larger portion of the nation's Gross National Product and of consumers' personal consumption expenditures.

NATIONAL HEALTH EXPENDITURES

Total national expenditures for health care more than quadrupled between 1960 and 1974, rising from $25.9 billion to $104.2 billion. Health expenditures are increasing more rapidly than the Gross National Product: National health care expenditures grew from 5.2% of the GNP in 1960 to 7.7% in 1974. (See Exhibits III-1 and III-2.)

The percentage of national health expenditures coming from public (that is, governmental) sources[1] increased from 25% in 1960 to 40% in 1974.

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[1] Public health expenditures include both direct governmental payments and payments made by the government to private insurers who act as intermediaries for Medicare and Medicaid payments.

Exhibit III-1

NATIONAL HEALTH EXPENDITURES: SELECTED YEARS 1950-1974

Type of Expenditure	1950		1955		1960		1965		1970		1974(prel.)	
	Amount ($ millions)	Percent of Total	Amount ($ millions)	Percent of Total	Amount ($ millions)	Percent of Total	Amount ($ millions)	Percent of Total	Amount ($ millions)	Percent of Total	Amount ($ millions)	Percent of Total
Health and Medical Services												
Public Expenditures	$ 2,470	20.5%	$ 3,862	22.3%	$ 5,346	20.7%	$ 7,641	19.6%	$22,576	33.2%	$ 37,369	35.8%
Private Expenditures	8,710	72.4	12,529	72.3	18,816	72.8	28,023	72.1	40,492	59.5	59,815	57.4
Total Expenditures	11,180	92.9	16,391	94.6	24,162	93.4	35,664	91.7	63.068	92.6	97,184	93.2
Medical Research												
Public Expenditures	$ 73	0.6%	$ 139	0.8%	$ 471	1.8%	$ 1,229	3.2%	$ 1,653	2.4%	$ 2,479	2.4%
Private Expenditures	37	0.3	55	0.3	121	0.5	162	0.4	193	0.3	205	0.2
Total Expenditures	110	0.9	194	1.1	592	2.3	1,391	3.6	1,846	2.7	2,684	2.6
Medical Facilities Construction												
Public Expenditures	$ 522	4.3%	$ 419	2.4%	$ 578	2.2%	$ 665	1.7%	$ 1,003	1.5%	$ 1,463	1.4%
Private Expenditures	215	1.8	325	1.9	524	2.0	1,172	3.0	2,166	3.2	2,909	2.8
Total Expenditures	737	6.1	744	4.3	1,102	4.2	1,837	4.7	3,169	4.7	4,372	4.2
Total Public Expenditures	$ 3,065	25.5%	$ 4,421	25.5%	$ 6,395	24.7%	$ 9,535	24.5%	$25,232	37.1%	$ 41,311	39.6%
Total Private Expenditures	$ 8,962	74.5%	$12,909	74.5%	$19,461	75.3%	$29,357	75.5%	$42,851	62.9%	$ 62,929	60.4%
Total National Health Expenditures	$12,027	100.0%	$17,330	100.0%	$25,856	100.0%	$38,892	100.0%	$68,083	100.0%	$104,239	100.0%
% of GNP Spent on Health	4.6%		4.6%		5.2%		5.9%		7.1%		7.7%	
% of Health and Medical Services from:												
Public Expenditures	22.1%		23.6%		22.1%		21.4%		35.8%		38.5%	
Private Expenditures	77.9		76.4		77.9		78.6		64.2		61.5	
% of Medical Research from:												
Public Expenditures	66.4%		71.6%		79.6%		88.4%		89.5%		92.4%	
Private Expenditures	33.6		28.4		20.4		11.6		10.5		7.6	
% of Medical Facilities Construction from:												
Public Expenditures	70.8%		56.3%		52.5%		36.2%		31.7%		33.5%	
Private Expenditures	29.2		43.7		47.5		63.8		68.3		66.5	

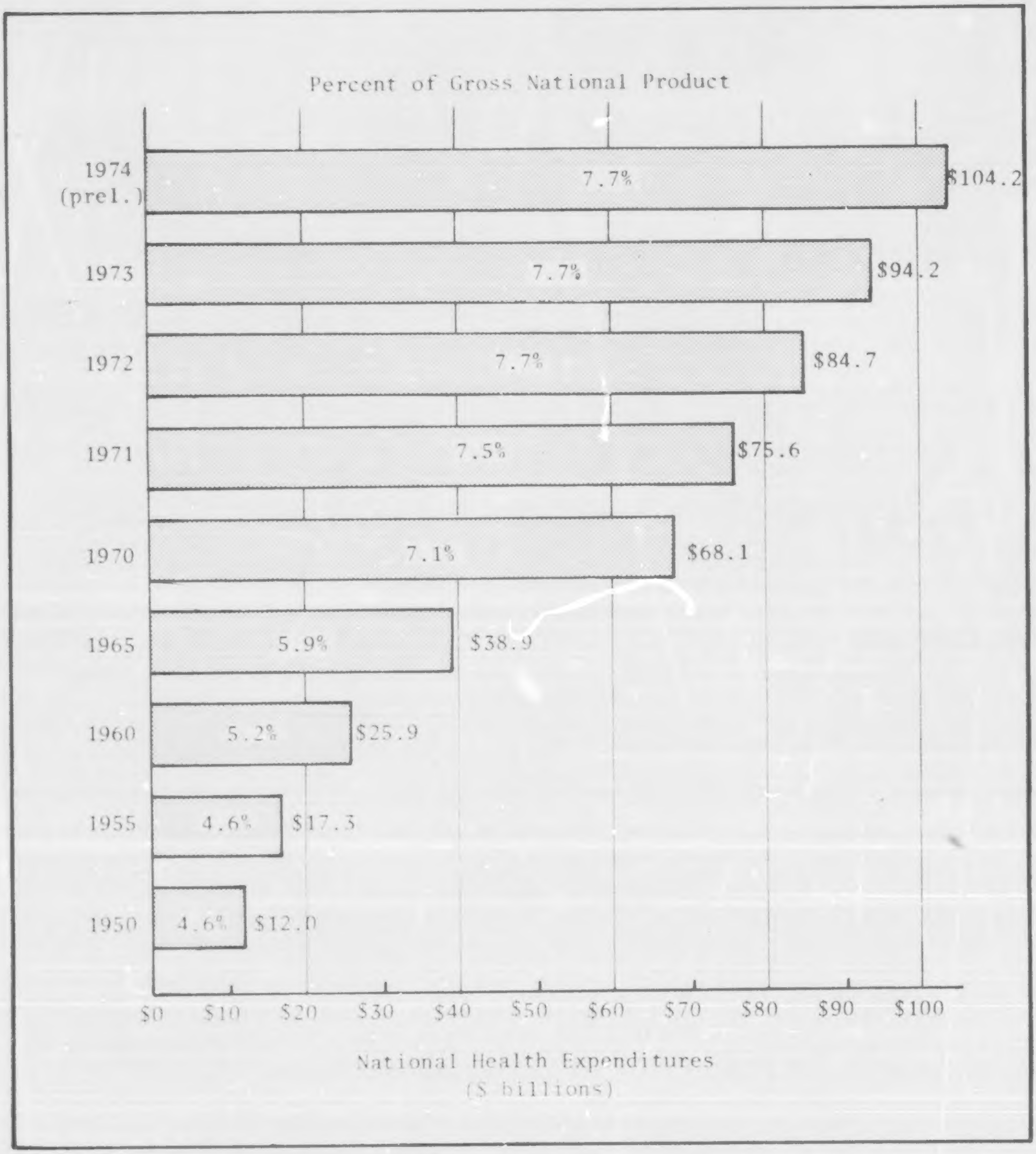
Sources: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States, 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Table 99.

Nancy Worthington, "National Health Expenditures, 1929-74," Social Security Bulletin, Feburary, 1975, p. 9.

Note: Totals do not always add up precisely due to rounding.

Exhibit III-2

NATIONAL HEALTH EXPENDITURES AND PERCENT OF GROSS NATIONAL PRODUCT: SELECTED FISCAL YEARS 1950-1974



Sources: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States, 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Table 99.

Nancy Worthington, "National Health Expenditures, 1929-74," Social Security Bulletin, February 1975, p. 9.

Conversely, the portion of health expenditures financed by private sources (consumers,[1] philanthropy, and others) has shrunk from 75% in 1960 to 60% in 1974. This shift is due primarily to soaring government expenditures for health and medical services since the introduction of Medicare and Medicaid in 1966. The government's share in the financing of health services rose from 22% in 1960 to 38% in 1974. Government financing of medical research has also grown, climbing from 80% of total research costs in 1960 to 92% in 1974. In contrast, public financing of medical facility construction declined from 52% of the total in 1960 to 33% in 1974 as health facilities were able to finance a growing portion of their construction costs with commercial loans.

The objects of our health expenditures are changing as much as the sources of funds, as can be seen in Exhibit III-3. A growing portion of our health dollar is going to hospitals and nursing homes. Whereas hospitals consumed 31% of national health expenditures in 1950, they absorbed 40% in 1974. Nursing homes took only 1.5% of our health dollar in 1950 but 7.1% in 1974. The percentage of the health dollar going to physicians and dentists has declined somewhat, and the percentage going for drugs and sundries dropped from 13.6% in 1950 to 9.3% in 1974. The changing distribution of our health dollar is the result of different growth rates in per capita expenditures for different health services. Total per capital expenditures for hospital care shot from $24.09 in 1950 to $190.44 in 1974, while total per capita expenditures for nursing home care climbed from $1.16 in 1950 to $34.69 in 1974. These increases are far greater than the increases in per capita expenditures for doctors and dentists, as can be seen in Exhibit III-4.

The shift in the objects of our health expenditures reflects the growing role of institutions in our health system as our increasingly sophisticated medical technology requires that more and more care -- outpatient as well as inpatient -- be provided where elaborate equipment is available. The doctor's

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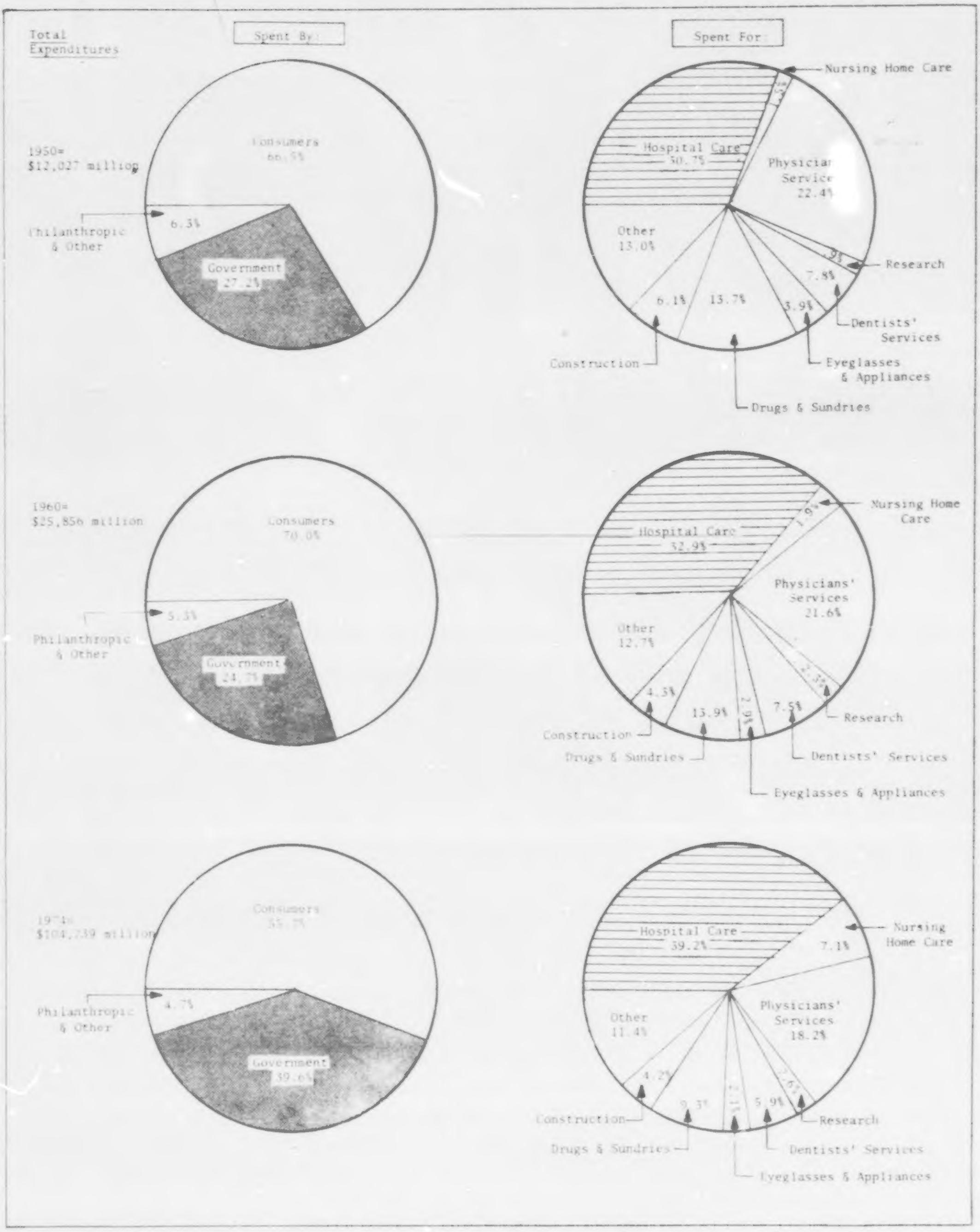
[1] Health expenditures by consumers include both out-of-pocket payments and payments made by individuals to private insurers for insurance coverage of health expenses.

Exhibit III-3

SOURCES AND OBJECTS OF NATIONAL HEALTH EXPENDITURES:

1950, 1960 AND FISCAL YEAR 1974

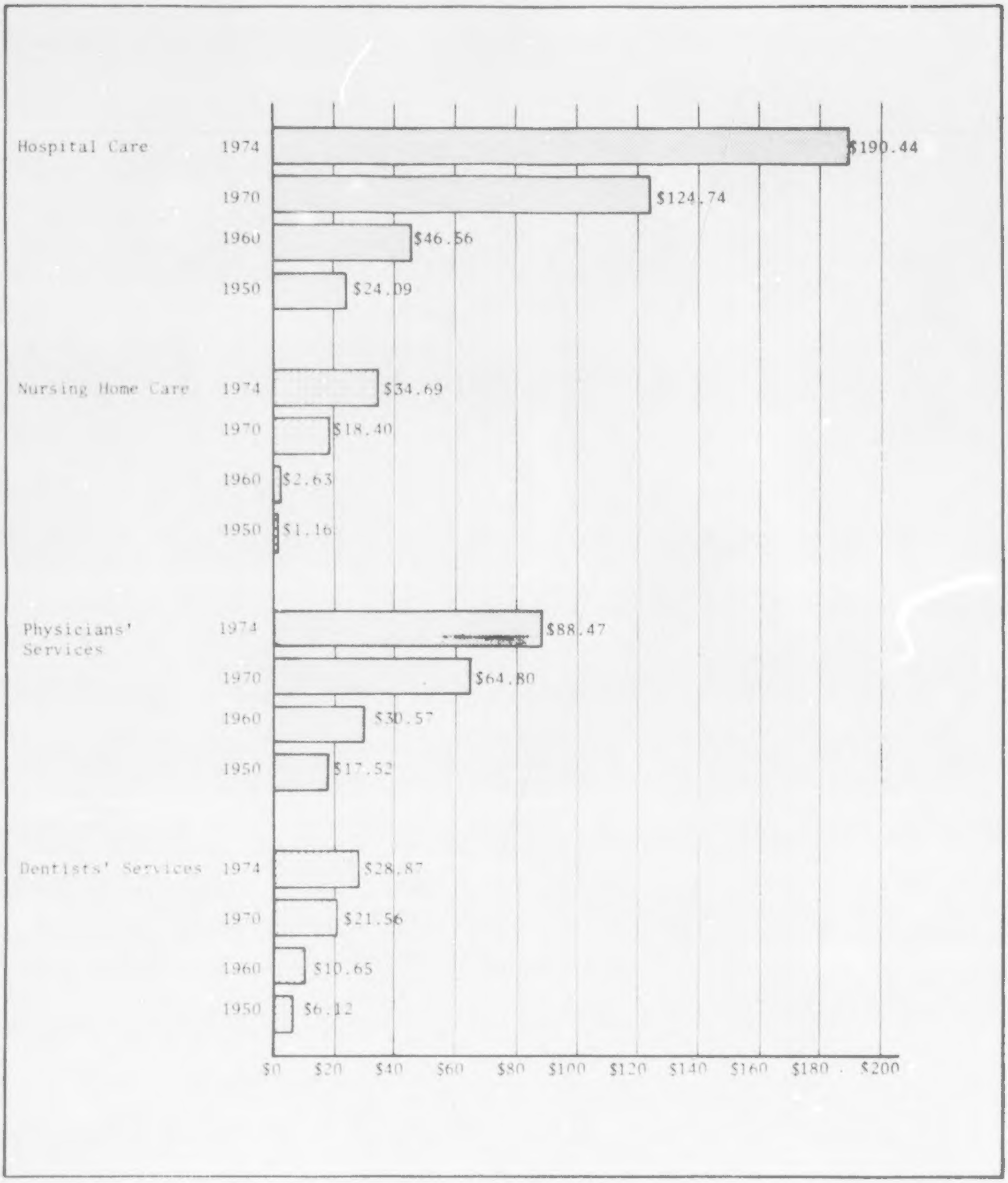


Sources: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States, 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Table 100.

Nancy Worthington, "National Health Expenditures, 1929-74," Social Security Bulletin, February 1975, pp. 9, 13.

Exhibit III-4

PER CAPITA EXPENDITURES FOR SELECTED HEALTH SERVICES: SELECTED YEARS 1950-1974



Source: Nancy Worthington, "National Health Expenditures, 1929-74," Social Security Bulletin, February 1975, p. 13.

black bag can no longer hold the tools needed for medical care. The changing age distribution of our population has also increased the demand for both hospital beds and nursing homes. The hospital has become the kingpin of the health care system, and the government is becoming its chief financier.

THE COST TO THE CONSUMER OF HEALTH CARE

The government funds pouring into health care have not kept consumers from feeling the impact of skyrocketing costs. Directly and indirectly (through out-of-pocket expenditures and health insurance premiums), the consumer is digging ever deeper into his pocket to pay for health care. Total private consumption expenditures for health and medical care were $62.9 billion in 1974, more than three times the $19.5 billion spent in 1960. (See Exhibit III-1.) Health care is not only costing the private sector more; it is also absorbing a higher percentage of consumers' income. As can be seen in Exhibit III-5, the percentage of total private consumption expenditures that went to medical care rose from 5.9% in 1960 to 7.8% in 1973. On a per capita basis, private expenditures for health services and supplies climbed steadily from $54.47 in 1950 to $102.44 in 1960 to $281.95 in 1974.[1]

Prices for medical care have risen steadily since World War II. Like prices for services generally, medical care prices have risen faster than the overall consumer price index. (See Exhibit III-6.) The price controls in effect from August 1971 to April 30, 1974 slowed down the inflation in health care costs, but these costs resumed their upward march as soon as controls were lifted. The charges of physicians and other health professionals have climbed at roughly the same rate as prices for all services, but hospital costs have gone through the ceiling: The cost of a semi-private room in a hospital soared 229% between 1967 and April 1975, while operating room

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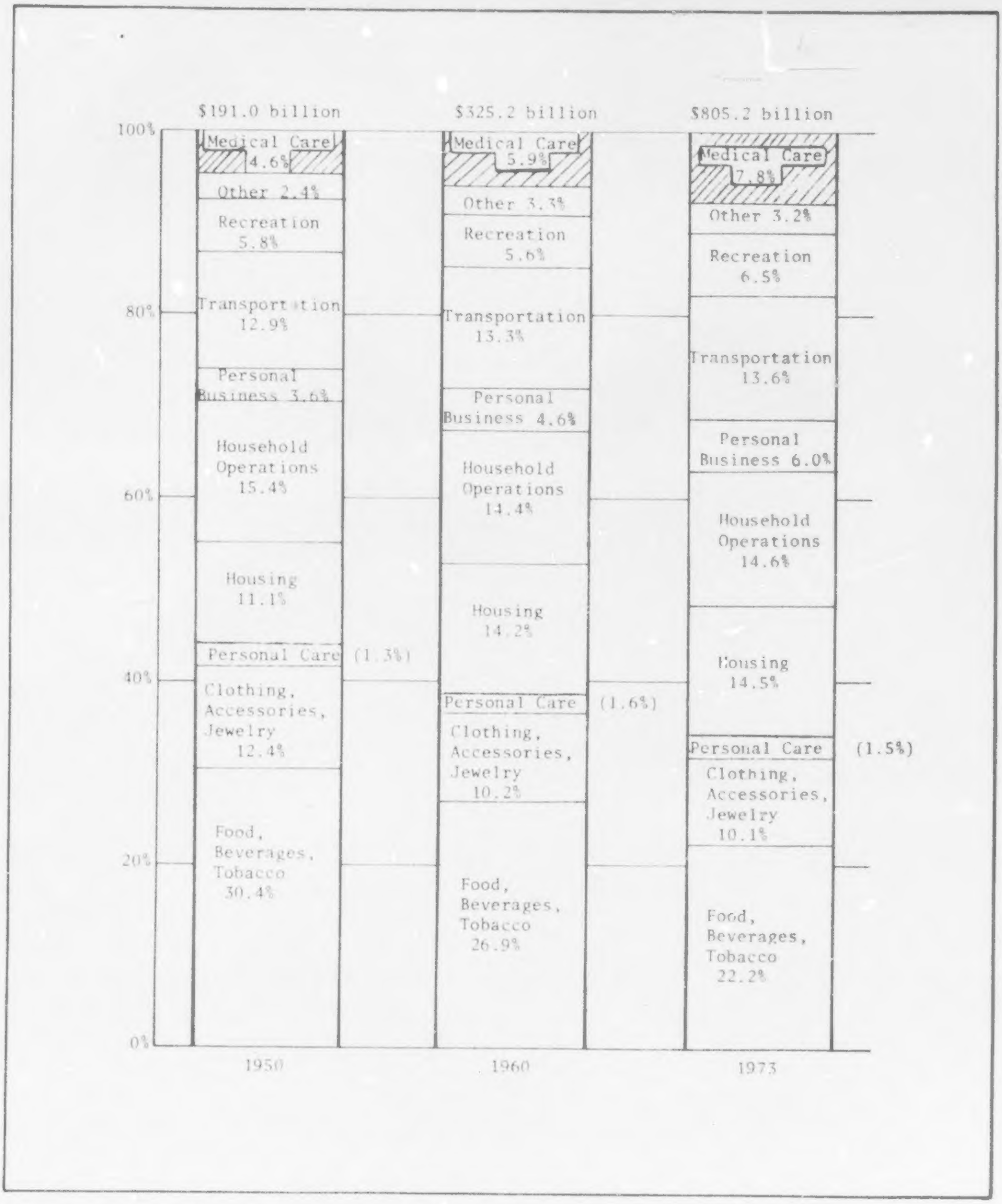
[1] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 101; and Nancy Worthington, "National Health Expenditures 1929-74," Social Security Bulletin, February 1975, pp. 13 and 16. These figures include the cost of prepayment and administration of health insurance.

Exhibit III-5

PERSONAL CONSUMPTION EXPENDITURES BY PRODUCT: 1950, 1960 AND 1973



Sources: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States, 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Table 605.

U.S. Department of Commerce, Office of Business Economics, Survey of Current Business, Vol. 54, No. 7, July 1974, Table 2.5.

Exhibit III-6

CONSUMER PRICE INDEXES OF SELECTED ITEMS: 1950-1975

(1967 = 100)

Year	All Items	All Services	Total Medical Care	Hospital Care			Professional Services					Drugs and Prescriptions
				Hospital Daily Service Charges (Jan. 1972 = 100)	Semi-Private Room Rates	Operating Room Charges	Physicians' Fees	Obstetrical Cases	Tonsillectomy and Adenoidectomy	Dentists' Fees	Optometric Examination and Eye Glasses	
1950	72.1	58.7	53.7	NA	30.3	NA	55.2	51.2	60.7	63.9	73.5	88.5
1955	80.2	70.9	64.8	NA	42.3	NA	65.4	68.6	69.0	73.0	77.0	94.7
1960	88.7	83.5	79.1	NA	57.3	NA	77.0	79.4	80.3	82.1	85.1	104.5
1965	94.5	92.2	89.5	NA	75.9	82.9	88.3	89.0	91.0	92.2	92.8	100.2
1966	97.2	95.8	93.4	NA	83.5	88.6	93.4	93.0	94.9	95.2	95.3	100.5
1967	100.0	100.0	100.0	NA	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.2	105.2	106.1	NA	113.6	111.5	105.6	105.2	104.9	105.5	103.2	100.2
1969	109.8	112.5	113.4	NA	128.8	128.7	112.9	113.5	110.3	112.9	107.6	101.3
1970	116.3	121.6	120.6	NA	145.4	142.4	121.4	121.8	117.1	119.4	113.5	103.6
1971	121.3	128.4	128.4	NA	163.1	156.1	129.8	129.0	125.2	127.0	120.3	105.4
1972	125.3	133.3	132.5	102.0[a]	173.9	168.6	133.8	133.8	129.9	132.3	124.9	105.6
1973	133.1	139.1	137.7	105.6[a]	182.1	179.1	138.2	138.1	132.8	136.4	129.5	105.9
Apr. 1974	143.9	147.9	145.6	110.7[a]	192.0	191.4	145.8	144.1	138.0	142.9	135.2	107.6
Apr. 1975	158.6	164.1	165.8	129.3[a]	228.8	234.6	166.2	163.6	160.2	159.7	148.1	117.5
% Increase 1955-1965	+18.0%	+30.0%	+38.0%	NA	+ 79.0%	NA	+33.0%	+30.0%	+50.0%	+44.0%	+21.0%	+ 6.0%
1965-1975	+68.0%	+78.0%	+85.0%	+27.0%[b]	+201.0%	+183.0%	+90.0%	+84.0%	+76.0%	+73.0%	+60.0%	+17.0%

Sources: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States, 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Tables 98, 665, and 666.

"Medical Care: Rising Cost in a Peculiar Marketplace," Federal Reserve Bank of Richmond Economic Review, March/April 1975, p. 11.

Boston Office of the U.S. Bureau of Labor Statistics.

[a] January 1972 = 100.

[b] Percent change 1972-75.

NA = Not Available.

charges rose 235% during that period. The graph in Exhibit III-7 illustrates the disparity between the price increases for hospital care and the rise in consumer prices generally.

While much more of Americans' income is going to health care, Americans to some extent are also receiving more. The number of active non-federal physicians in patient care rose from 123 per 100,000 population in 1965 to 131 in 1973,[1] and the percentage of the population that had seen a doctor sometime during the year rose from 65% in 1963 to nearly 75% in 1973. On the other hand, the number of physician visits per year per person was the same in 1973 as it had been in 1957-59. The number of dentists per 100,000 population dropped from 50 in 1950 to 47 in 1972, but the percentage of the population that had seen a dentist sometime during the year rose from 40% in 1957-59 to nearly 49% in 1973.[2]

The average daily census in all U.S. hospitals dropped from 1.4 million in 1965 to 1.2 million in 1973, as more and more patients were moved out of long-term institutions for the care of those with mental problems or tuberculosis. However, the average daily census in non-federal, short-term hospitals rose from 530,000 in 1963 to 680,000 in 1973, a 28% increase in a decade.[3] The use of hospital outpatient facilities has grown at an even more accelerated pace, doubling between 1963 and 1973.[4] The number of residents of nursing and personal care homes rose from 491,000 in 1963 to 1,076,000 in 1971, an increase of 119%.[5]

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[1] See Exhibit IV-19 in Chapter IV.

[2] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 107; and Exhibit I-7 in Chapter I.

[3] American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: 1974), p. 7.

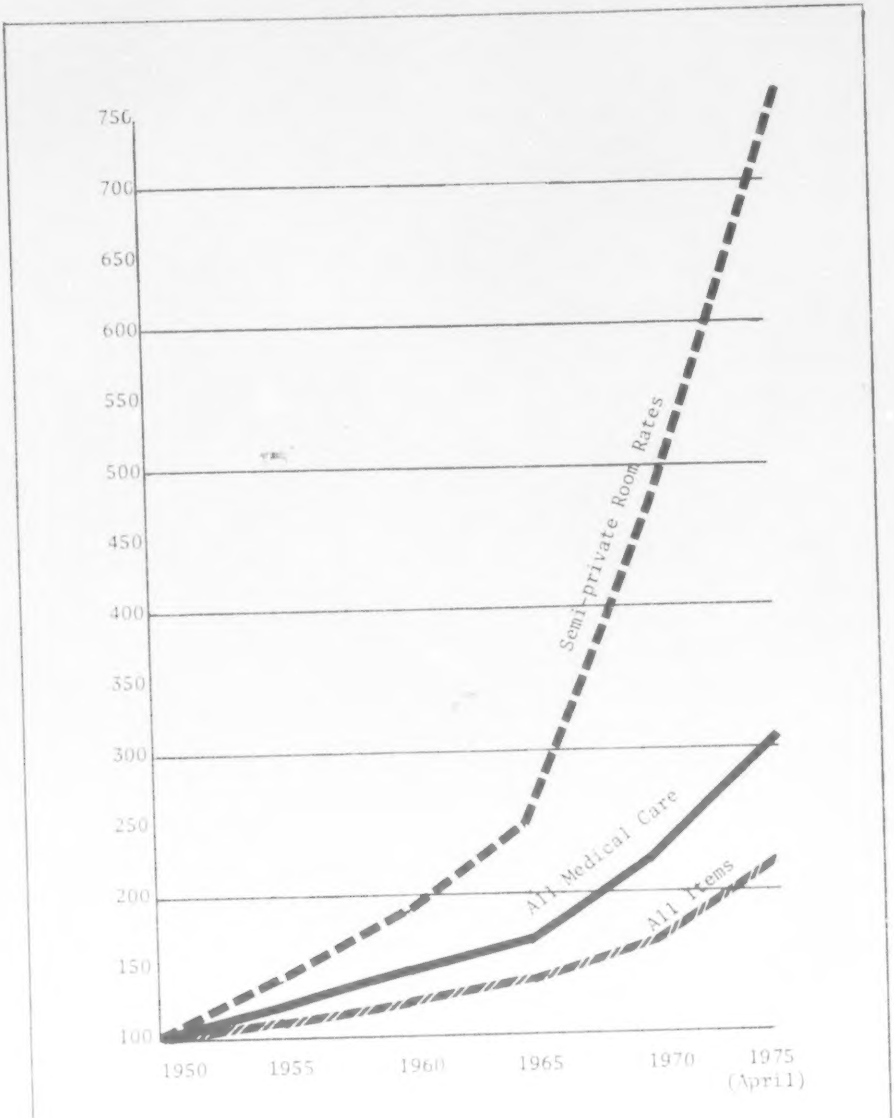
[4] Ibid.

[5] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 121.

Exhibit III-7

CONSUMER PRICE INDEXES OF SELECTED ITEMS: 1950-1975

(1950=100)



Sources: U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States, 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Tables 98, 665 and 666.

"Medical Care: Rising Cost in a Peculiar Marketplace," Federal Reserve Bank of Richmond Economic Review, March/April 1975, p. 11.

Boston Office of the U.S. Bureau of Labor Statistics.

In sum, the increases in the amount of medical and dental care received in this country are relatively small, but the utilization of short-term hospitals and especially of nursing homes has climbed rapidly. And whether in a hospital or a doctor's office, the patient is generally receiving more specialized care given with more sophisticated equipment. And, thanks in part to the better care being given, our citizens are living longer -- and requiring more care by doctors, hospitals, and nursing homes than earlier generations required. But consumers, faced with today's health bills, must sometimes wonder if the improvements in health care are growing as rapidly as health care costs.

HOSPITAL EXPENSES

The steepest cost inflation in the health care system has occurred in hospitals. These institutions are now being pressured from all sides to curb their expenses. Among the myriad reasons for the escalation in hospital expenses are the ease with which hospitals could pass on their costs, the growing capital intensiveness of hospital care, and the changing method of financing hospital capital expenditures. Hospitals are now financing their capital expenditures far less with philanthropic gifts and government grants and far more with commercial loans, the repayment of which adds to hospitals' fixed costs.

RAPID ESCALATION IN HOSPITAL COSTS

While consumers are expressing dismay over their rising health care bills, the hospitals are trying to cope with escalating expenses. Total expenses for non-federal, short-term hospitals multiplied five times between 1960 and 1973, rising from $5.6 million to $28.5 million[1] The rate of increase was considerably slower in the pre-Medicare period than it was later: Between 1960 and 1965 total expenses for these hospitals rose 63%, while during the five years from 1968 to 1973 the increase was 101%. Non-payroll expenses have risen twice as fast as payroll expenses, particularly in recent years: Between 1960 and 1973 payroll expenses rose 132%, while non-payroll expenses jumped 260%. Total expenses for all types of hospitals, including federal hospitals and long-term hospitals, rose at a somewhat more sedate pace than the expenses of the non-federal, short-term hospitals. (See Exhibit III-8.)

The reasons for these startling increases are myriad, as is illustrated in Exhibit III-9.

- General inflation: Hospitals have been hit by rising prices for food, fuel, construction, and the like as much as other enterprises. For example, between January 1973 and July 1974, hospitals had to pay 15% more for the food served patients and 17% more for fuel to heat their facilities.[1]
- Population growth: As the population has grown, so too has the need for health care for that population.
- Increased utilization of short-term hospitals: In non-federal, short-term hospitals, patient days per 1,000 civilian population increased from 1,072 in 1965 to 1,194 in 1973. This growth in the use of hospital services has many causes, among them the following:
    (1) A growing percentage of our population is elderly and therefore in need of more health services than the population as a whole.

    (2) More people can afford to use hospital and other health services, in part because of the increasing affluence of the population but mostly because of the growing number of people who have their health expenses covered at least in part by Medicare, Medicaid, and health insurance policies. There may be a natural law "that says the cost of illness increases in proportion to the ability to collect for it."[2]

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[1] Kenneth Raske, "The Components of Inflation," Hospitals, July 1, 1974, p. 69.

[2] I.D. Robbins, "Health Costs -- A One-Way Street," Wall Street Journal, May 8, 1975.

Exhibit III-8

HOSPITAL EXPENSES:

1946-1973

	Payroll Expenses			Non-Payroll Expenses			Total Expenses		
	Amount ($ millions)	Per Patient Day	Per Adjusted Patient Day[a]	Amount ($ millions)	Per Patient Day	Per Adjusted Patient Day[a]	Amount ($ millions)	Per Patient Day	Per Adjusted Patient Day[a]
United States--All Hospitals									
1946	$1,103	$ 2.93	NA	$ 860	$ 2.28	NA	$ 1,963	$ 5.21	NA
1950	2,191	4.79	NA	1,460	3.19	NA	3,651	7.98	NA
1955	3,582	7.20	NA	2,012	4.04	NA	5,594	11.24	NA
1960	5,588	10.92	NA	2,833	5.54	NA	8,421	16.46	NA
1965	8,551	16.70	NA	4,397	8.59	NA	12,948	25.29	NA
1968	11,997	23.78	NA	7,064	14.00	NA	19,061	37.78	NA
1970	15,706	33.16	NA	9,850	20.79	NA	25,556	53.95	NA
1971	17,635	39.07	NA	11,177	24.75	NA	28,812	63.82	NA
1972	19,530	44.17	NA	13,137	29.72	NA	32,667	73.89	NA
1973	21,330	49.18	NA	14,960	34.49	NA	36,290	83.67	NA
Non-Federal Short-term Hospitals									
1946	$ 619	$ 4.98	NA	$ 550	$ 4.41	NA	$ 1,169	$ 9.39	NA
1950	1,203	8.86	NA	917	6.76	NA	2,120	15.62	NA
1955	2,117	14.26	NA	1,317	8.86	NA	3,434	23.12	NA
1960	3,499	20.08	NA	2,118	12.15	NA	5,617	32.23	NA
1965	5,644	27.44	$25.02	3,503	17.04	$15.54	9,147	44.48	$ 40.56
1968	8,445	36.61	33.28	5,717	24.77	22.52	14,162	61.38	55.80
1970	11,421	47.30	43.05	8,139	33.71	30.68	19,560	81.01	73.73
1971	13,053	53.80	48.62	9,347	38.51	34.81	22,400	92.31	83.43
1972	14,519	59.79	53.77	11,030	45.42	40.84	25,549	105.21	94.61
1973	15,867	63.86	56.67	12,629	50.83	45.11	28,496	114.69	101.78
% increase 1960-65	+61.3%	+56.6%	NA	+65.4%	+40.2%	NA	+62.8%	+38%	NA
% increase 1968-73	+87.9%	+74.4%	+70.3%	+120.9%	+105.2%	+100.3%	+101.2%	+86.9%	+82.4%

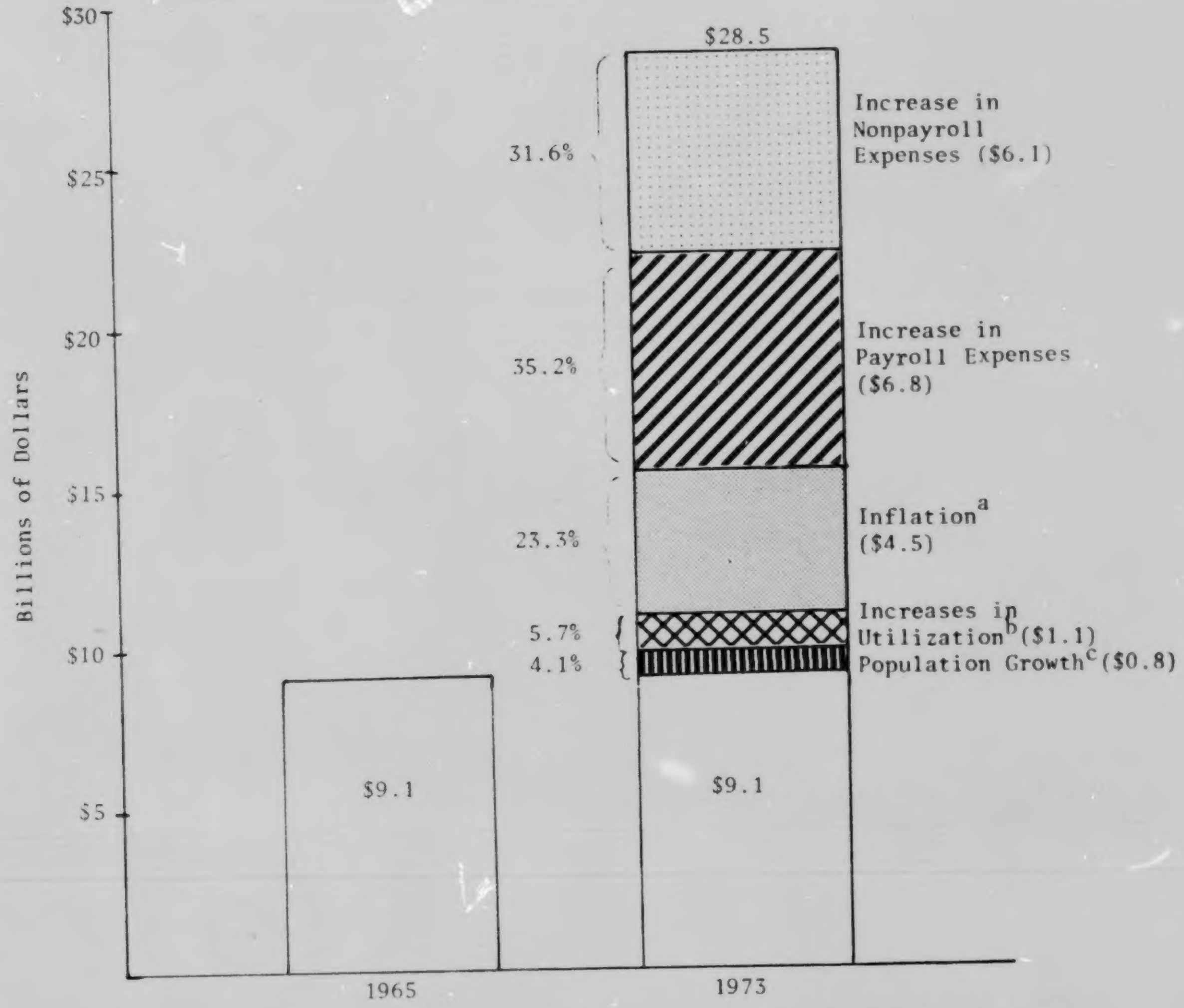
Source: American Hospital Association, Hospital Statistics, 1974 Edition (Chicago, Ill.: 1974), pp. 19-20.

NA = Not Available.

[a] Adjusted patient days take into account outpatient visits as well as inpatient days.

Exhibit III-9

FACTORS CONTRIBUTING TO THE INCREASE IN NON-FEDERAL SHORT-TERM HOSPITAL EXPENDITURES: 1965 AND 1973



Source: American Hospital Association, Hospital Statistics, 1974 Edition (Chicago, Ill.: 1974), p. 20.

Note: All amounts, except those due to inflation, have been adjusted for the decreasing purchasing power of the dollar.

[a] The Consumer Price Index rose 40.8% between 1965 and 1973.

[b] Non-federal short-term hospital patient days per 1,000 civilian population increased from 1,072 in 1965 to 1,194 in 1973.

[c] The U.S. civilian population increased 8.6% between 1965 and 1973.

(3) The present surplus of hospital beds may of itself be stimulating the demand for hospital care. "The observation that the number of hospital beds per 1,000 population differs substantially among areas without any sizable effect on the occupancy rate has led to the proposition that the supply of beds 'creates its own demand.'"[1] Thus, current programs to curb the expansion of the bed supply may in the long run dampen the demand for hospital care.

(4) Decreased utilization of long-term hospitals has increased the demand for short-term hospital beds. As patients are moved out of long-term mental hospitals, the need grows for psychiatric beds in short-term general hospitals. While short-term hospitals' patient days per 1,000 civilian population increased 21% between 1965 and 1973, in long-term hospitals patient days per 1,000 civilian population were cut in half during that period, dropping from 131 in 1965 to 69 in 1973.[2]

(5) The new medical technology has increased the demand for hospital care. New treatments have been developed for diseases earlier considered untreatable. These new treatments often require elaborate equipment available only in a hospital. The new technology is saving lives, but those who are saved may require periodic stays in a hospital for the rest of their lives.

(6) The growing specialization of doctors, accompanying the new technology, appears to be increasing the demand for hospital care. "A greater availability of general practitioners appears

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[1] Martin S. Feldstein, The Rising Cost of Hospital Care, published for the National Center for Health Services Research and Development, U.S. Department of Health, Education, and Welfare (Washington, D.C.: Information Resources Press, 1971), p. 30.

[2] Calculated from figures in American Hospital Association, op. cit., pp. 20-21.

to reduce the demand for both admissions and for longer stays while a greater availability of other doctors has the opposite effect... Estimates suggest that an increase in the number of general practitioners would induce a very large saving in hospital resources, on the order of $39,000 a year per general practitioner."[1]

(7) Hospital emergency rooms are being used for primary care formerly provided by private physicians. This trend appears to have been precipitated by a growing unavailability of physicians after hours and a decline in doctors' visits to the home.[2]

- Increased capital and equipment costs of hospitals: As indicated above, non-payroll costs of hospitals have risen faster than payroll costs. Non-payroll expenses were 37% of the total expenses of non-federal, short-term hospitals in 1960, but by 1973 they had grown to 44% of the total. Assets per bed for these hospitals rose from $16,992 in 1960 to $41,680 in 1973, with the biggest jump in assets per bed occurring in the post-Medicare years: Assets per bed arose a modest 18% between 1960 and 1965 but leapt up 54% during the five years between 1968 and 1973. (See Exhibit III-10.) Waldman has calculated that the increase in non-labor inputs accounted for 31% of the rise in the cost per patient day in non-federal, short-term hospitals between 1951 and 1970, and the rise in prices for non-labor items accounted for another 10% of the cost increase. (See Exhibit III-11.)

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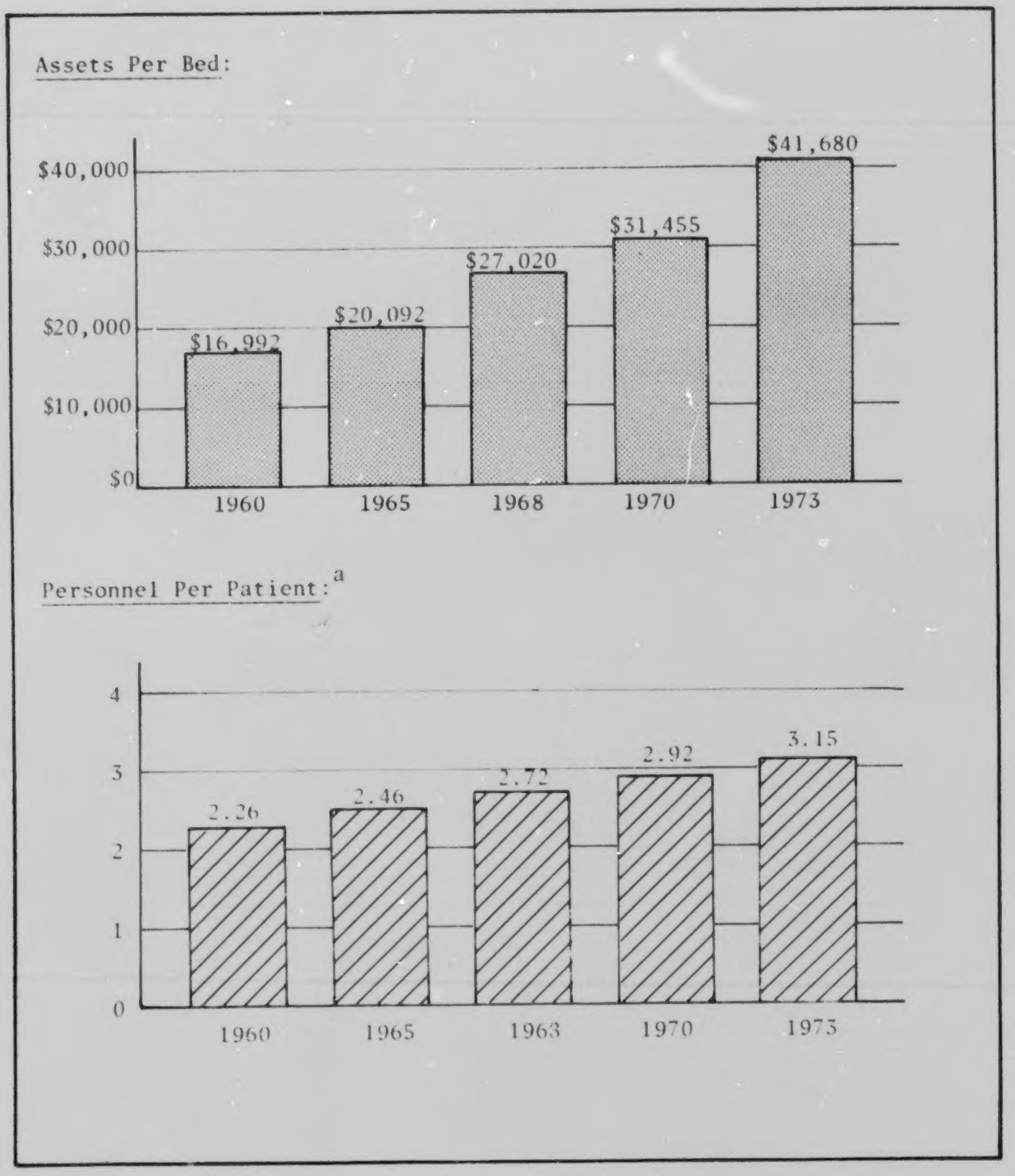
[1] Martin Feldstein, "Hospital Cost Inflation: A Study of Non-Profit Price Dynamics," American Economic Review, December 1971, pp. 870-871.

[2] Karen Davis, "Rising Hospital Costs: Possible Causes and Cures," Bulletin of the New York Academy of Medicine, December 1972, p. 1359.

Exhibit III-10

ASSETS PER BED AND PERSONNEL PER PATIENT:
SELECTED YEARS 1960-1973
(Non-federal, short-term hospitals)



Source: American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: 1974), p. 20.

[a] Personnel per patient in the average daily census.

Exhibit III-11

COST PER DAY PER PATIENT IN SHORT-TERM COMMUNITY HOSPITALS: AVERAGE ANNUAL RATE OF INCREASE AND PERCENTAGE DISTRIBUTION OF INCREASE: SELECTED PERIODS 1951-1970

Item	1951-1970	1951-1955	1955-1960	1960-1966	1966-1970
Percentage Increase					
Total	8.6%	8.4%	6.9%	6.9%	13.9%
Increase in wages and prices[a]	4.2%	3.7%	3.8%	3.1%	7.8%
Wage rates	5.8	5.8	4.9	4.1	9.8
Price levels	2.1	.8	2.0	1.5	4.8
Increase in inputs[a]	4.4	4.7	3.1	3.8	6.1
Labor	2.9	4.4	2.2	2.5	2.8
Nonlabor	6.4	4.8	4.5	6.0	11.0
Percentage distribution					
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Increase in wages and prices	49.4%	44.7%	54.9%	44.7%	56.3%
Wage rates	39.1	40.9	44.0	36.4	42.4
Price levels	10.4	3.8	11.0	8.3	13.9
Increase in inputs	50.6	55.3	45.1	55.3	43.7
Labor	19.5	31.4	19.8	22.2	12.1
Nonlabor	31.1	23.9	25.3	33.1	31.7

Source: Samuel Waldman, The Effect of Changing Technology on Hospital Costs, Research and Statistics Note 4 (Washington, D.C.: Social Security Administration, 1972).

[a] Based on the weighted average of the two detailed components listed below.

(1) The principal reason for the increased capital and equipment costs of hospitals is the new medical technology, which requires ever more elaborate facilities to treat patients and frequent replacement of equipment made obsolete by new developments. Hospital care is becoming more capital intensive as it becomes more sophisticated.

(2) Another reason for hospitals' rising capital costs is the reduced availability of philanthropic gifts and government grants to finance capital expenditures. As indicated below, hospitals are increasingly financing their capital expenditures with commercial loans, which require interest payments and periodic reductions of the principal, both of which add to capital expenses.

- Higher personnel costs: Four factors are pushing up the personnel costs of hospitals:

(1) More highly specialized personnel are required to operate the increasingly sophisticated facilities mandated by the new medical technology. These specialized personnel earn higher salaries than the ordinary hospital employees.

(2) The new medical technology requires not only more specialized personnel but also a higher density of personnel. In 1960 there were 2.26 personnel per patient in non-federal, short-term hospitals; by 1973 there were 3.15. As with non-labor inputs, the increase in personnel per patient was more rapid in the post-Medicare years: Hospital personnel per patient rose 8.8% between 1960 and 1965 and 15.8% between 1968 and 1973. (See Exhibit III-10.) The growing density of hospital personnel accounted for nearly 20% of the increase in cost per patient day between 1951 and 1970. (See Exhibit III-11.)

(3) The general rise in wages across the nation's entire work force has compelled hospitals to increase their wages in order to attract an adequate number of employees. As can be seen in Exhibit III-12, wages for employees in all industries rose nearly 74% between 1963 and 1973. The extension of the minimum wage law to cover hospital employees probably also had a small effect on average hospital wages.

(4) Hospital wages have risen more rapidly than those elsewhere as efforts were made to compensate for the low wages traditionally paid by hospitals. As can be seen in Exhibit III-12, average earnings of those employed in medical and other health services were only 66% of average earnings in all industries in 1963, and they continued to be low until Medicare was introduced. Thereafter, wages in the health system began to rise more rapidly than wages elsewhere until by 1973 average earnings in health services were over 79% of those in industry as a whole. "In particular, the wage rates of clerical, housekeeping and maintenance workers in hospitals have risen much more rapidly than the rates in such occupations in other industries. By 1969, hospital employees often had higher earnings than other workers in the same job categories. Moreover, the rates of wage increase have been as high for professional nursing and technical staff as for the less skilled employees."[1] Some of the "catching up" in hospital wages was due to growing unionization of hospital employees -- or just the threat of possible unionization --,[2] and some was due to the need to raise wages sufficiently to attract the growing number of personnel needed to

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[1] Feldstein, The Rising Cost..., op. cit., p. 75.

[2] A court ruling recently held that hospital employees are covered by the National Labor Relations Board.

Exhibit III-12

AVERAGE ANNUAL EARNINGS PER FULL-TIME EMPLOYEE FOR SELECTED INDUSTRIES: 1963-1974

Industry	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973
All Industries	$ 5,243	$ 5,503	$ 5,710	$ 5,954	$ 6,230	$ 6,657	$ 7,098	$ 7,571	$ 8,059	$ 8,610	$ 9,106
Agriculture, Forestry & Fisheries	1,771	1,920	2,046	2,247	2,434	2,633	2,952	3,255	3,373	3,653	4,053
Mining	6,240	6,521	6,788	7,136	7,556	7,964	8,619	9,259	9,831	10,665	11,448
Contract Construction	6,018	6,332	6,595	7,016	7,417	7,953	8,615	9,294	9,924	10,254	10,694
Manufacturing	5,920	6,196	6,389	6,647	6,880	7,347	7,775	8,153	8,640	9,201	9,758
Nondurable Goods	5,284	5,526	5,691	5,919	6,180	6,586	6,984	7,386	7,830	8,297	8,748
Durable Goods	6,407	6,703	6,903	7,158	7,369	7,881	8,326	8,710	9,248	9,865	10,460
Transportation	6,852	7,163	7,484	7,786	8,129	8,676	9,321	9,988	10,918	11,738	12,740
Communication	6,128	6,435	6,617	6,908	7,041	7,500	7,984	8,397	9,103	10,143	10,814
Electric, Gas & Sanitary Services	6,751	7,070	7,292	7,608	7,964	8,435	9,013	9,630	10,332	11,042	11,743
Wholesale & Retail Trade	5,071	5,261	5,437	5,630	5,870	6,206	6,542	6,895	7,245	7,640	8,053
Finance, Insurance, Real Estate	5,595	5,851	6,058	6,336	6,717	7,235	7,680	8,035	8,575	9,097	9,525
Services	3,924	4,130	4,298	4,481	4,770	5,088	5,507	5,932	6,316	6,721	7,115
Medical & Other Health Services	3,452	3,641	3,740	3,821	4,197	4,579	5,046	5,661	6,252	6,797	7,231
Government & Government Enterprises	5,205	5,488	5,717	5,909	6,222	6,717	7,187	7,964	8,611	9,428	9,966
Earnings in Medical & other Health Services as % of Earnings in All Industries	65.8%	66.2%	65.5%	64.2%	67.4%	68.8%	71.1%	74.8%	77.6%	78.9%	79.4%

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business (Volume 54, Number 7, July 1974), Table 6.5; and prior July issues of Survey, same Table.

staff a modern hospital. For example, the average salary paid hospital residents rose from $4,037 in 1963-64 to $10,880 in 1972-73, yet as of September 1, 1973, 9% of all residency positions were unfilled, and hospitals had been able to fill 28% of the positions only by using graduates of foreign medical schools.[1] Salaries for residents and interns, however, have risen more rapidly than those of other hospital employees: At Massachusetts General Hospital, for example, nurses' wages rose 100% between 1959 and 1969, but interns' salaries during that period rose 1650%![2] Rising wage rates accounted for 39% of the increase in hospitals' cost per patient day between 1951 and 1970, as Exhibit III-11 shows.

- Weakening of incentives to keep costs down: The power wielded by doctors over hospitals and the generous reimbursement of hospital costs paid by Medicare and other health insurers have made hospital administrators less able to resist the various forces pushing hospital costs up.

  (1) Doctors have been eager to add elaborate equipment to the hospitals in which they practiced, for practicing in a well equipped hospital added to their prestige in our technology-conscious health care system, while the high cost of that equipment was of little concern to doctors who were able to use it at no expense to themselves. In short, physicians in general have had no financial incentive to keep hospital costs down, and it is they who largely determine both the administration and the costs of hospitals.[3]

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[1] Anne Crowley, ed., "Medical Education in the United States, 1973-74," Journal of the American Medical Association, Supplement January 1975, p. 49.

[2] Godfrey Hodgson, "The Politics of American Health Care," The Atlantic, October 1973, p. 51.

[3] I.D. Robbins, "Health Costs - A One-Way Street," Wall Street Journal, May 8, 1975.

(2) The consumer, too, has not been immediately concerned about rising hospital costs. Consumers protest loudly about rising health insurance premiums, but, when they enter a hospital, they want the best possible care because so much of the cost is covered by health insurance. While patients in 1950 paid about a third of their hospital bills directly, they were paying only a tenth in 1974, with the government (53%), private health insurance (35%) and philanthropy (1%) paying the remainder.[1] Therefore, the rapid escalation in hospital costs has brought only a modest increase in the net price to the consumer, that is, the hospital's charge net of the insurance benefits. The net price to the consumer is generally too small to deter him from demanding the most expensive care, and hospitals have encountered no consumer resistance when they raised their prices.

(3) Hospital administrators -- at least in the past -- have had little incentive to keep costs down since third parties (Medicare, health insurers, etc.) have tended to reimburse them for all costs no matter how rapidly those costs rose. Now, of course, third parties are seeking to change their reimbursement procedures to make hospitals more cost conscious. (See the section on "Rate Regulation by the Government" in Chapter II and the section on "Use of Health Insurance to Control Costs" later in this chapter.) But easy reimbursement of costs in the past made it difficult for hospital administrators to resist demands for wage increases or to deny doctors' requests for new equipment. Hospitals have continued to add beds despite drops in their occupancy rates. And inadequate utilization controls encouraged hospitals to follow costly procedures, such as bringing patients in on Friday when no medical service was available until Monday or requiring a chest X-ray every time a patient entered the hospital even when the patient came in several times during a year.[2]

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[1] Nancy Worthington, "National Health Expenditures, 1929-74," Social Security Bulletin, February 1975, p. 14.

[2] Robbins, op. cit.

(4) The passion for high technology combined with weak incentives to keep costs down has tended to push hospitals into adding facilities for which there was inadequate demand. For example, of the nearly 800 hospitals equipped to perform open heart surgery in 1972, a third had never performed such an operation, and another third did less than 12 per year.[1] An underutilized facility is expensive to operate, for the high fixed costs can be spread among fewer patients. The growing phenomenon of underutilized facilities is what has inspired the Certificate of Need laws described in Chapter II.

(5) Government price controls, while they were in effect, kept a lid on hospital charges, though charges shot up again when controls were lifted. Now the health care administrators' fear that controls may be reinstituted is spurring the installation of expensive equipment that might be difficult to add if price controls were in effect.

- Increased cost per patient day triggered by efforts to reduce hospital utilization: Hospital utilization review procedures and other efforts to eliminate unnecessary use of expensive hospital services can have the perverse effect of increasing costs per patient day.

  (1) The elimination of unnecessary hospitalization may lower hospital occupancy rates. An unoccupied bed can cost a hospital as much as $36,000 a year in fixed costs,[2] and these costs have to be added to the cost of caring for those patients who do occupy hospital beds. Thus, a lower occupancy rate increases the cost per patient day, for each patient has to bear a larger share of the hospital's fixed costs.

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[1] David Blumenthal and James Fallows, "Health: The Care We Want and Need," Washington Monthly, October 1973, p. 18.

[2] Dr. Meyer Herman, Massachusetts Department of Public Health, Spring 1974.

(2) The requirement that patients be treated as much as possible on an outpatient basis means that those patients actually put in the hospital are more likely to have complex maladies that are expensive to care for. The average cost per patient day is raised because there are fewer patients with simple problems to lower the average.

(3) Reducing the average length of stay also increases costs per patient day, for the most expensive part of a hospital stay is the first few days when the patient is being given more treatment than is generally the case toward the end of a hospital stay.

IMPACT ON THE HEALTH CARE SYSTEM OF EFFORTS TO CURB RISING COSTS

The days of reckless escalation in hospital costs are over. Comprehensive health planning efforts, Certificate of Need laws, government regulation of hospital rates, and reduction in the government funds available for hospital construction and health research are applying cold compresses to the feverish expansion that infected the health care system in the 1960's. Even Blue Cross/Blue Shield has instituted programs to make hospitals more cautious about letting their costs run wild, as will be seen later in this chapter.

Hospitals will need to respond to this intensified concern about their costs. They will need to do serious, carefully thought out, long range planning to ensure that their plans are financially feasible and will meet real needs of the community. There will have to be far greater coordination of plans among health facilities in an area to avoid unnecessary duplication of services and to ensure that, in ruthless cost-cutting, no serious gaps are left in the services provided.

Faced with soaring expenses and possibly with lower occupancy rates (if PSRO's cut hospital utilization), smaller hospitals will be under pressure to merge with other institutions or to share facilities with others. Hospitals may need to form regional associations whose members share certain facilities, such as a laundry, or certain staff, such as long range planners. Selected hospitals in such an association might provide care for all the obstetric patients in the region, while other hospitals in the association might provide care to coronary cases. Some trends of this sort have already begun, as can be seen in Chapter IV.

Underutilized facilities will have to be eliminated, and facilities for highly specialized care will need to be restricted to a few institutions. Other hospitals will need to establish procedures for transferring to those institutions the patients requiring the specialized facilities.

Hospitals will be under pressure to specialize more than at present. Rate regulation may in time push teaching hospitals into eliminating from their rolls patients with simple maladies that can be treated as readily and less expensively in community hospitals. Restricted both by financial problems and by Certificate of Need laws, community hospitals may find it less easy to add specialized facilities and may thus be forced to concentrate their efforts on patients with less complex health problems. In short, government regulation and economic pressures may steer hospitals into specializing by level of care. Hospitals providing simpler levels of care may be allowed to add (or maintain) a few highly specialized services when the need for such services is great enough to keep the facility adequately utilized without seriously lowering the utilization rates at other hospitals in the area. In general, however, the more specialized facilities will be designed to serve patients in a wider area than that normally serviced by a community hospital; when a community hospital adds a highly specialized facility, it will, in most cases, need to serve patients not only in its own service area but also in the service area of other community hospitals, and it will need to have some referral system with those other hospitals. Here again greater coordination among institutions will be necessary.

Under pressure from third parties eager to keep reimbursement costs low, price competition might be instituted for certain procedures: Full reimbursement would be granted patients only if they went to institutions that could provide the procedure at a cost below that specified by third parties.

Although consumers are not too cost conscious when buying hospital services, both the government and private health insurers are looking more closely at hospitals' price tags, and hospitals will need to make greater efforts to keep their prices as low as possible.

PSRO's, if they are effective, will presumably reduce the demand for acute care beds, but reduced utilization of acute care beds is likely to increase the demand for less expensive forms of care -- outpatient facilities for ambulatory patients and extended care facilities for convalescent patients. Hospitals will need to expand their outpatient clinics (and emergency rooms) and to organize them so they serve patients more efficiently. Better procedures will need to be devised for doing diagnostic tests and pre-surgery tests on an outpatient basis as much as possible. More hospitals will have to provide for one-day surgery for simple operations that really do not require an overnight stay in a hospital. PSRO's will probably also push hospitals into transferring patients more rapidly from acute care beds to "progressive care" or "extended care" beds when the convalescing patient no longer requires such intensive (and expensive) nursing services. Hospitals may need to transform some of their acute care beds into extended care beds. At the very least, they will need to have firm arrangements with some extended care facilities to which they can transfer their convalescing patients.

Comprehensive health planning efforts and Certificate of Need laws will surely slow the growth in acute care beds if the demand for them is reduced by PSRO's. Not only will the growth in beds be slowed, but so too will the addition of specialized facilities. Technological change in the health care system may occur at a slower rate as hospitals find it more difficult to raise the funds or gain the approval for capital expenditures. Indeed, the steam behind technological change may be diminished if the cuts in health research expenditures in time reduce the pace of medical discovery.

Wage increases are likely to be granted with greater reluctance by hospitals, although here the need to curb costs will be countered by the growing unionization of hospital employees.

Some methods will need to be devised to make doctors more concerned about hospital costs than they have been in the past. Somehow the doctors will have to be given a stake in the hospital's efforts to live within its budget.

The diminishing funds available for research and the growing reluctance of third parties to reimburse hospitals for their teaching costs will compel hospitals to take a closer look at their research and teaching programs to determine real costs versus the real benefits of these endeavors. Some hospitals may need to reduce their residency programs or eliminate their nursing schools. Cost-benefit analyses may acquire the vogue that aggressive expansion plans did in the past.

FUNDING OF HOSPITAL CONSTRUCTION AND THE CHANGING ROLE OF PHILANTHROPY

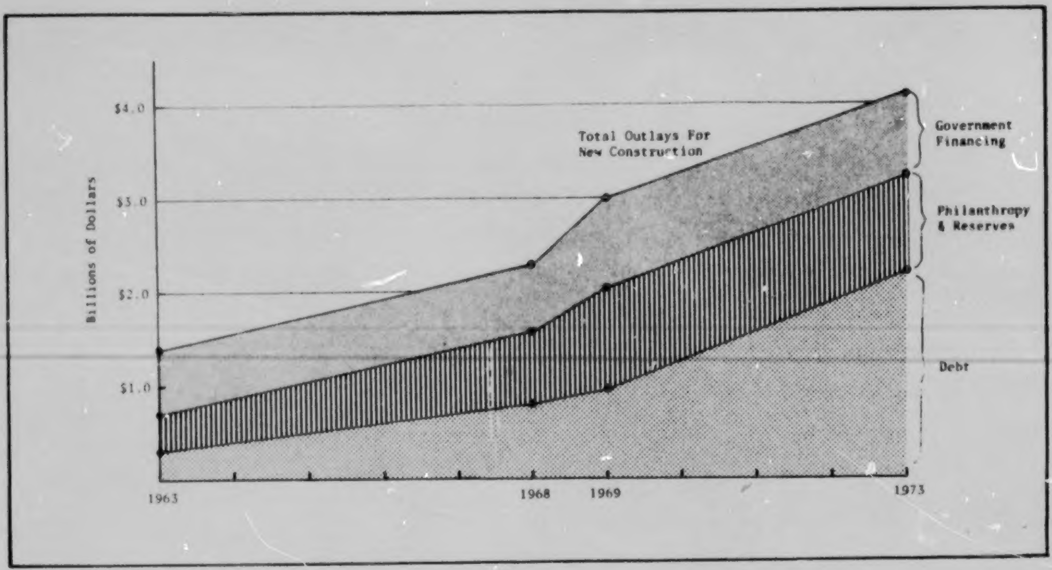
Philanthropy played a major role in financing hospital construction in the early years of this century, but by 1973 philanthropy was paying less than 10% of the costs of hospital construction. (See Exhibit III-13.) In the years after World War II, government funds disbursed under the Hill-Burton Act financed a considerable portion of hospital construction, but by 1973 only 21% of hospital construction costs were being paid for by the government, and most government funds were going for the construction of federal, state, or local government hospitals.

Now the major means of raising capital for construction is debt financing. By 1973, non-profit, short-term hospitals were covering 62% of their construction costs with commercial loans (often guaranteed by the government), and for-profit, short-term hospitals were financing 80% of their construction with commercial loans.

The growth of debt financing has been particularly marked since the introduction of Medicare. Hospitals can now rely on commercial loans to finance construction because reimbursements from both Medicare and other health insurers cover the interest on these loans, and the depreciation costs allowed by third parties provide hospitals with the means to repay the loan principal.

Exhibit III-13

A. TOTAL OUTLAYS AND FINANCING SOURCE FOR NEW HOSPITAL CONSTRUCTION: 1963-1973



B. PERCENTAGE OF CAPITAL FUNDS USED FOR HOSPITAL CONSTRUCTION BY THE SOURCES OF FUNDS[a]: 1968, 1969 AND 1973

Hospital Classification	Source of Funds											
	Government			Philanthropy			Hospital Reserves[b]			Debt		
	1968	1969	1973	1968	1969	1973	1968	1969	1973	1968	1969	1973
Total	31.7%	32.3%	20.9%	19.9%	13.9%	9.9%	14.0%	21.7%	14.9%	33.7%	32.0%	54.3%
Federal	99.8%	100.0%	100.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Nonfederal	27.6	30.3	17.9	21.1	14.4	10.3	14.9	22.3	15.5	35.7	33.0	56.3
Long-term	67.0	86.6	49.4	19.5	4.8	8.9	3.7	2.4	2.3	9.4	6.2	39.4
Short-term	23.2	26.1	15.7	21.2	15.1	10.4	16.1	23.8	16.4	38.7	35.0	57.5
Nongovernmental												
Not-for-profit	17.2	16.6	8.3	24.2	17.9	11.8	17.3	26.0	17.6	40.8	39.6	62.3
Investor-owned	0.0	0.2	4.0	0.0	1.1	0.0	22.4	36.9	15.1	63.7	62.9	80.3
State and Local Government	56.0	65.9	44.5	7.9	6.6	5.7	9.8	13.8	11.5	25.4	13.7	38.7

Sources: Social Security Administration.
"How Hospitals Finance Construction", Hospitals, July 1, 1971, p. 47-53.
"Trends in the Financing of Hospital Construction", Hospitals, July 1, 1974, p. 56.

[a] 1969 data based on construction completed in that year; 1973 data is for construction begun in 1973.

[b] Includes equity for investor-owned facilities.

Increasing reliance on commercial loans, however, is raising hospital costs, for commercial loans, unlike philanthropic and government grants, must be repaid with interest. Capital costs are a growing portion of hospital expenses.

Although philanthropy is playing a diminishing role in the health care system, it still has an important contribution to make. For example, private philanthropy has become the key supporter of community-sponsored out-of-hospital medical care programs. Of the private foundation expenditures in the health field, more than half went for improving the organization and delivery of health services and for manpower training. Thus, while growing government funds are being expended on the financing of health services, private foundations are directing their efforts more toward long-term projects to improve the health care system. Private philanthropy has become a major source of first stage, "venture capital" support for the formulation of new projects or ideas.[1] Although private philanthropy now finances less than 5% of the nation's health expenditures,[2] it may, in its small way, contribute to improving the delivery of health care in this country.

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[1] Robert J. Blendon, "The Changing Role of Private Philanthropy in Health Affairs," The New England Journal of Medicine, May 1, 1975, p. 948.

[2] U.S. Department of Commerce, Statistical Abstract...1974, op. cit., Table 100, and "The Role of Philanthropy in Financing Health Care," Hospitals, December 1, 1974, p. 39.

THE GROWTH OF HEALTH INSURANCE

To pay their rapidly escalating health care bills, more and more people are acquiring some sort of health insurance. Today 87% of the population is insured for hospital expenses, 81% is insured for surgical expenses, and 72% is insured for regular medical expenses. Thanks to health insurance and government programs such as Medicare, the consumer today must pay out of his pocket only 10% of his hospital costs and less than 40% of his doctor bills. However, the poor have far less health insurance than those with higher incomes, and, even among the large portion of the population with health insurance, insurance benefits may be inadequate to protect them from serious inroads on their purses, particularly when a medical catastrophe occurs. Health insurance is also growing increasingly costly: In 1973 premiums cost consumers 3.2% of their disposable income. Extensive insurance coverage has increased both the demand for health care and also the cost of that care.

THE PRESENT INSURERS

Hospital insurance dates back as far as 1798 when the U.S. Marine Hospital Service, established by Congress, operated a compulsory plan for merchant seamen. In 1847 the Massachusetts Health Insurance Company of Boston became the first company in the country authorized to issue medical insurance. The biggest boost to modern hospital insurance came in 1929 when Baylor University Hospital in Dallas, Texas introduced a group hospitalization plan for local school teachers. This was the first Blue Cross plan in the country. This plan was initiated, not so much to meet consumer demands, but to meet the needs of the hospital, which was concerned about its lack of funds and the shortage of patients able to pay their hospital bills. Soon afterwards, other employee groups, such as newspaper and bank employees, joined the plan, and similar hospitalization insurance plans began to develop in other parts of the country.

Since that small beginning in 1929, Blue Cross/Blue Shield and medical society-approved plans have grown so rapidly that by 1973 nearly 80 million Americans were protected for hospital expenses by these plans. The Blues, thus, were serving 44% of all those insured for hospital expenses and roughly similar percentages of those insured for surgical expenses and of those insured for regular medical expenses.[1]

Commercial insurance companies provide hospital expense protection to a much larger number of people, 108.6 million individuals in 1973, or 60% of the total.[2] (The percentages total more than 100% because some people have coverage through more than one insurer.)

So-called "independent plans" provide hospital insurance for a relatively small number of people: 9.5 million individuals in 1973.[3] Some of these "independent plans" are sponsored by consumer groups, communities, fraternal groups, and private group clinics. In some cases these plans are controlled by consumers (e.g., Health Insurance Plan of Greater New York) and in some cases they are controlled by providers (e.g., Ross-Loos Medical Group of Los Angeles). Over half of the independent plans, however, are industrial plans sponsored by an employer, by employees, by a union, or jointly by employer and employees. Some cover HMO-type providers such as the Kaiser-Permanente. (As indicated earlier, HMO's -- Health Maintenance Organizations -- provide comprehensive health services for a fixed monthly fee.) Many of the independent plans, both HMO's and others, operate on a group practice basis for one or more benefits.

Some HMO's do not operate under independent insurance plans, but use either Blue Cross/Blue Shield or insurance companies to cover all or a portion of the benefits provided to the HMO's members. In such a case the HMO provides (or arranges for) comprehensive health services for its members, but contracts with an insurer to provide insurance coverage for some or all of these services. Sometimes it is the insurance company itself which organizes or administers the HMO. At mid-1974, at least 55 private insurance companies had some degree of involvement in 71 HMO's in various stages of development. Insurance companies were performing a variety of functions for HMO's: financial support (loan capital, grant, equity capital, guaranteed enrollment, share in operating loss); consultation; administration; marketing; out-of-area emergency coverage; reinsurance; providing hospitalization coverage; and acceptance of risk on failure to perform.[1]

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[1] Health Insurance Institute, Source Book of Health Insurance Data 1974-75 (New York, N.Y.: 1974), p. 21.

[2] Ibid.

[3] Ibid.

There is considerable difference, both in benefits covered and in the cost of premiums, between group insurance policies and individual and family policies. Persons able to obtain group insurance generally pay a lower premium and receive greater benefits. All those in independent plans can be considered as belonging to groups, and about 90% of those with Blue Cross/Blue Shield are enrolled through groups. However, of persons insured through private insurance companies, only about 77% have a group policy. Of all the benefit payments by private insurance companies, only 16% go to holders of individual and family policies, but these policy holders pay 26% of the health insurance premiums received by these companies.[2]

POPULATION COVERED BY INSURANCE

The growth in the number of people covered by health insurance has been phenomenal. In 1940 only 12 million people were insured for hospital expenses, 5 million for surgical expenses, and 3 million for regular medical expenses. (Regular medical expense insurance covers the cost of such services as non-surgical care by a doctor in the hospital, at home, or in a physician's office; and X-rays or laboratory tests performed outside of the hospital.) By 1973 the number with health insurance had climbed to 182 million insured for hospital expenses, 169 million insured for surgical expenses, and 152 million insured for regular medical expenses. Thus, less than 10% of the resident population were insured for hospital expenses in

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[1] Health Insurance Institute, Source Book of Health Insurance Data 1974-75 (New York, N.Y.: 1974), p. 16.

[2] Ibid., pp. 38 and 48.

1940 while 87% were so insured in 1973. As for surgical expenses, only 4% were insured in 1940 but 81% were insured in 1973. This is shown graphically in Exhibit III-14 and statistically in Exhibit III-15.

Insurance for medical expenses other than surgery covered 72% of the population in 1973, but this coverage is often only for care related to a hospital stay. Only 34% of the population had insurance coverage for physician care in the office or home.[1]

Although health insurance has grown rapidly for those with middle and upper level incomes, the poor still have relatively little of it. In 1970, only 39% of those with a family income of less than $3,000 had hospital insurance, and only 37% had surgical insurance. Of those with an income between $3,000 and $4,999, only 53% had hospital insurance and 50% had surgical insurance. In contrast, 90% of those with an income of $10,000 or more had hospital insurance and 88% had surgical insurance. (See Exhibit III-16.)

Health insurance, beneficial as it is for those who have it, thus fails to cover that part of the population most in need of it -- the poor. Medicaid was instituted to fill this gap, but escalating costs have caused states to cut back on those covered by Medicaid and to reduce the benefits for those covered. Thus the near poor are often covered neither by Medicaid nor by health insurance.

The inadequate health insurance coverage of the poor and near poor has two principal underlying causes: Health insurance premiums are too costly for them, and many of them are unemployed or work on jobs where the employer provides no health insurance. One reason for the striking growth in health insurance coverage is the fact that health insurance is one of the benefits employers frequently offer employees, and employers often pay at least a portion of the premium. About a third of workers in group health insurance plans had their premiums paid in full by their employers, and another 47%

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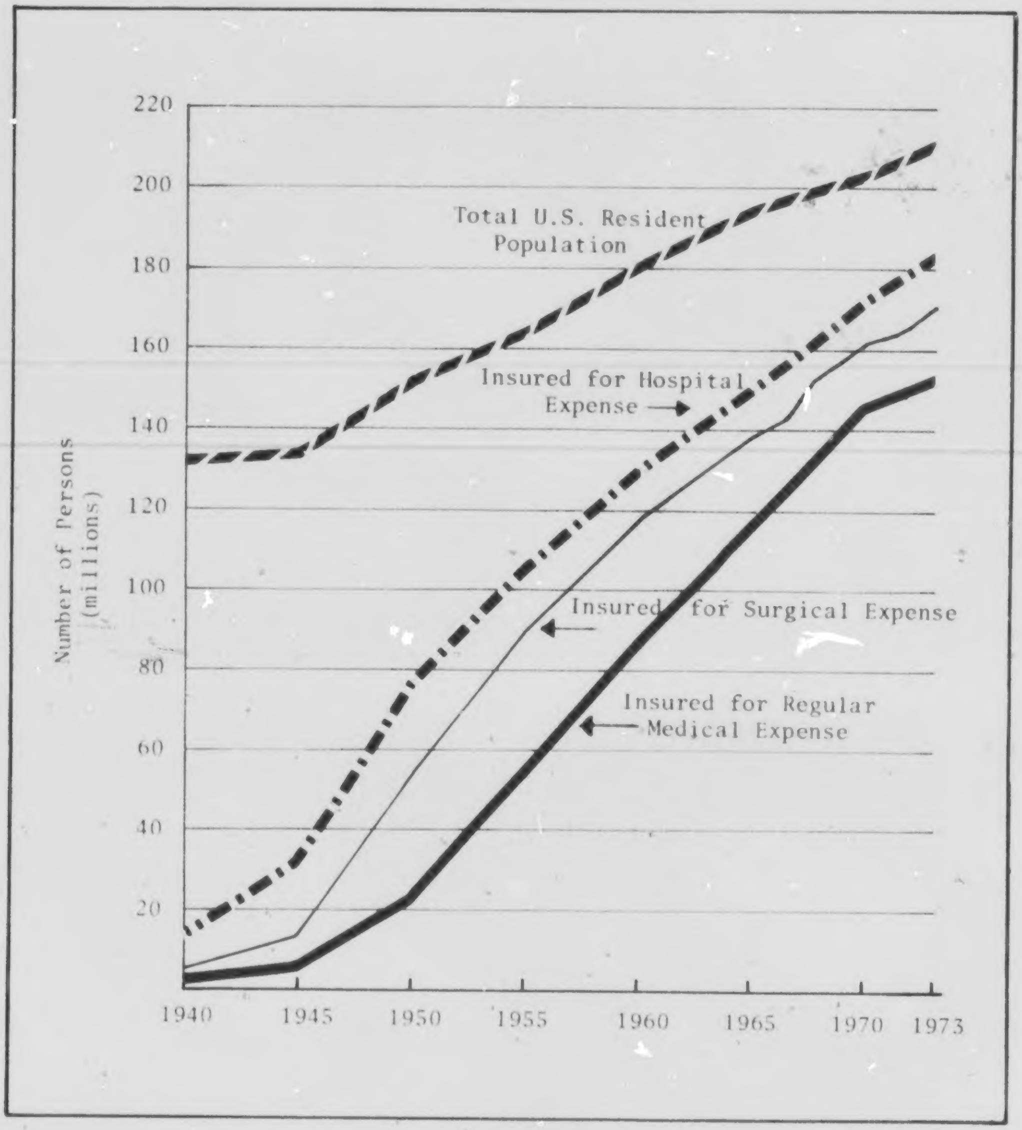
[1] Marjorie Smith Mueller, "Private Health Insurance in 1973: A Review of Coverage, Enrollment, and Financial Experience," Social Security Bulletin, February 1975, p. 22.

Exhibit III-14

TOTAL U.S. POPULATION AND NUMBERS WITH HEALTH INSURANCE PROTECTION: 1940-1973



Sources: Health Insurance Institute, Source Book of Health Insurance Data, 1974-1975 (New York, N.Y.: Health Insurance Institute, 1974), p. 20.

U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States: 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), Table 2.

Exhibit III-15

NUMBER OF PEOPLE IN U.S. WITH HEALTH INSURANCE BY TYPE OF COVERAGE: SELECTED YEARS 1940-1973

(000's)

End of Year	Hospital Expense	Surgical Expense	Regular Medical Expense	Major Medical Expense	Loss of Income		Dental Expense
					Short-term	Long-term	
1940	12,312	5,350	3,000	-	NA		-
1945	32,068	12,890	4,713	-	NA		-
1950	76,639	54,156	21,589	-	37,793		-
1955	105,452	88,856	54,935	5,241	39,513		-
1960	130,007	117,304	86,889	24,375	42,436		NA
1965	148,826	138,224	114,871	50,656	46,403	4,457	NA
1970	172,306	161,240	145,727	73,506	57,168	10,740	6,581
1971	175,800	163,060	146,513	76,539	58,178	12,011	7,790
1972	178,417	164,815	148,076	79,786	60,396	14,130	8,909
1973	182,079	169,416	152,167	82,485	61,894	15,332	11,150

Source: Health Insurance Institute, Source Book of Health Insurance Data 1974-75 (New York, N.Y.: 1974), p. 20.

Note: Data have been revised due to a change in methodology of data collection. The data refer to the net total of people protected, i.e., duplication among persons protected by more than one kind of insuring organization or more than one insurance company policy providing the same type of coverage has been eliminated. The "Hospital Expense", "Surgical Expense", and "Regular Medical Expense" categories represent coverage provided by insurance companies, Blue Cross, Blue Shield and medical society-approved plans, and independent plans. The "Major Medical Expense" and "Dental Expense" categories represent insurance companies only. The "Disability Income" category represents insurance companies, formal paid sick leave plans, and coverage through employee organizations.

NA = Not Available.

- = Not Applicable.

Exhibit III-16

PERCENT OF THE POPULATION UNDER AGE 65 WITH HEALTH INSURANCE BY FAMILY INCOME: 1970

Family Income	Hospital Insurance	Surgical Insurance
$3,000	39.3%	36.7%
$3,000-$4,999	53.1	50.2
$5,000-$6,999	74.5	71.8
$7,000-$9,999	84.3	81.9
$10,000+	90.1	88.3

Source: U.S. House of Representatives, Committee on Ways and Means, National Health Insurance Resource Book, April 11, 1974 (Washington, D.C.: U.S. Government Printing Office, 1974), p. 77.

of the workers shared the cost of the plan.[1] But those who have no job -- or whose employer offers no health insurance -- not only get no help in paying the premium for insurance; they also may be unable to get a group health insurance policy and must rely on an individual policy. And individual policies generally are both more costly and provide fewer benefits than group policies. Thus, the person unable to get health insurance through his job is doubly handicapped. And it is generally low wage earners who are not able to get group health insurance. Although nearly 90% of workers in manufacturing industries are covered by group health insurance, in service industries, where wages tend to be low, only 55% are covered.[2] While well over 90% of full time workers earning $9,000 or more are covered by group health insurance, only 59% of full time workers earning less than $5,000 have such coverage.[3]

Even for people covered by insurance, the insurance often does not provide complete coverage, particularly for those who have individual policies. Although some hospital insurance policies provide full coverage of daily room-and-board charges, others pay only a percentage of these charges, and still others pay a fixed dollar amount no matter how high the actual charges may be. Moreover, full coverage is not always provided for ancillary hospital services such as laboratory tests, X-rays, anesthesia services, use of the operating room, and intensive care.

Many insurance policies also put a limit on the total benefits that will be paid or on the number of days of hospital care they will cover. Thus the patient with a medical catastrophe may be faced with catastrophic out-of-pocket expenses even if he has health insurance. To compensate for the limits imposed on some health insurance policies, growing numbers of people have taken out major medical expense policies, which cover unusually heavy expenses resulting from prolonged illness or serious injury. The number of persons with major medical coverage from commercial insurance companies grew from 108,000 in 1951, the first year the coverage was widely offered, to 82 million in 1973.[1] Blue Cross/Blue Shield provided this coverage to an additional 37 million people in 1973,[2] and many independent plans also cover major medical expenses. However, a considerable portion of the population remains without coverage for medical catastrophes.

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[1] Walter Kolodrubetz, "Group Health Insurance Coverage of Full Time Employees, 1972," Social Security Bulletin, April 1974, p. 17.

[2] Kolodrubetz, op. cit., pp. 17 and 20.

[3] Ibid., p. 26.

HEALTH COSTS COVERED BY INSURANCE

Thanks to the growth of major medical policies, to the expansion of benefits on other hospital insurance policies, and to Medicare and Medicaid, the portion of consumers' hospital bills covered by either insurance or the government has grown over the years until by fiscal 1974 the average out-of-pocket cost to the consumer for hospital care was only 10% of the bill. Private insurance was paying 36%, and the government (through Medicare and Medicaid) was paying 53%. (See Exhibit III-17.)

With a growing portion of the population insured for regular medical expenses as well as surgical expenses, insurance now covers roughly the same percentage of consumers' doctors bills as their hospital bills, but here consumers' out-of-pocket costs are 39% of the total because the government pays only 24% of personal expenditures for physicians' services. Per capita out-of-pocket expenditures for physicians' services were $34.37 in 1974, while per capita out-of-pocket expenditures for hospital care were only $19.90. (See Exhibit III-18.) The fact that third parties cover a far larger portion of hospital bills than doctor bills is undoubtedly one reason that hospital utilization has grown so much more rapidly than the use of physicians' services. Physician fees have risen at a more temperate pace than hospital charges, but the impact of escalating hospital charges has been diluted for

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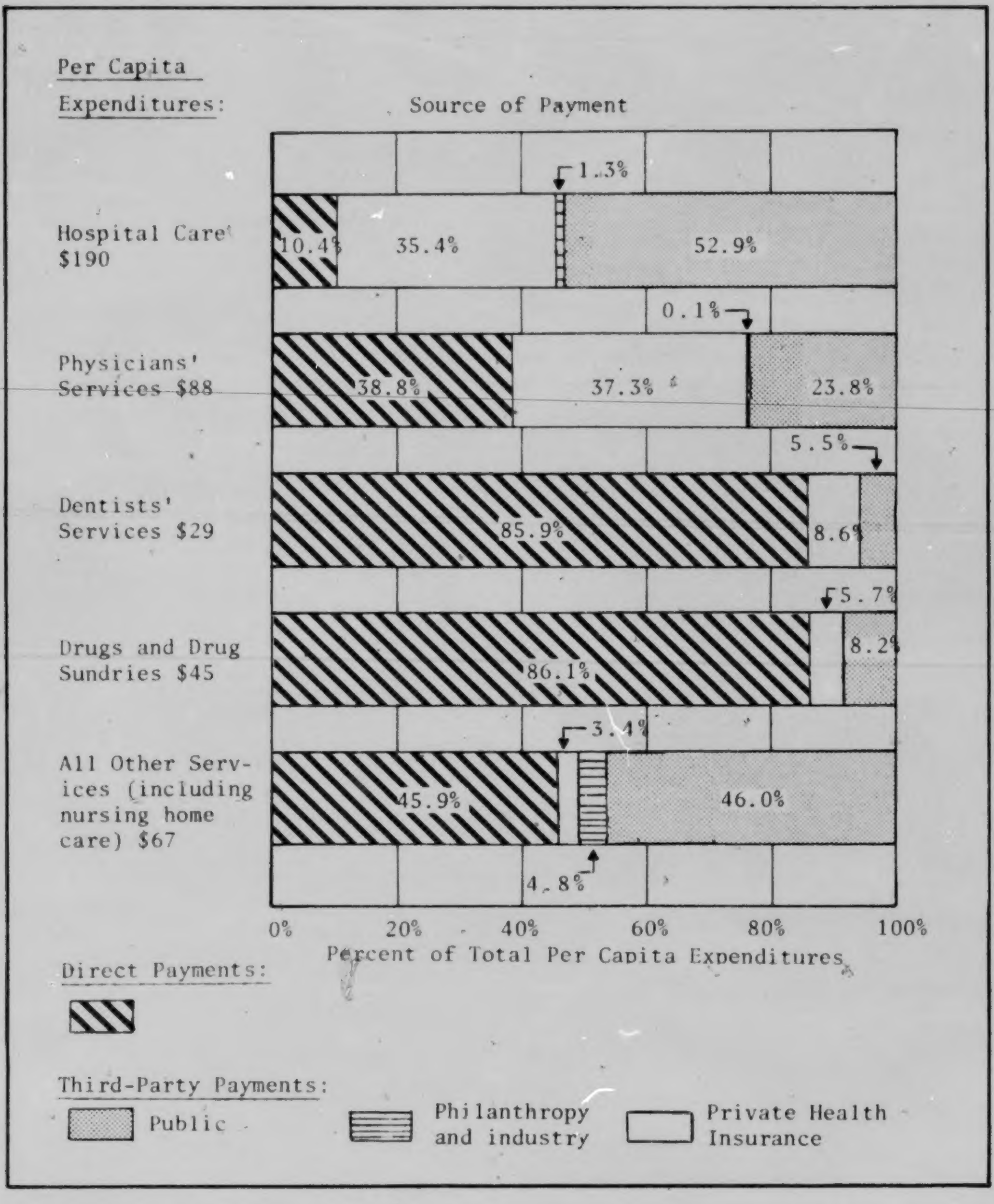
[1] Health Insurance Institute, op. cit., p. 26.

[2] Mueller, op. cit., p. 30.

Exhibit III-17

PERCENTAGE OF VARIOUS PERSONAL HEALTH EXPENDITURES PAID BY DIFFERENT SOURCES: FISCAL YEAR 1974



Source: Nancy Worthington, "National Health Expenditures, 1929-74," Social Security Bulletin, February 1975, p. 15.

Exhibit III-18

AMOUNT OF PER CAPITA PERSONAL HEALTH CARE EXPENDITURES PAID BY THIRD PARTIES: FISCAL YEAR 1974

Per Capita Expenditure For:	Total	Out-of-Pocket Payments	Third Party Payments			
			Total	Private Health Insurance	Government	Philanthropy and Industry
Total Personal Health Care [a]	$420.38	$148.86	$271.52	$107.74	$158.09	$5.68
Hospital Care	190.44	19.90	170.54	67.45	100.71	2.39
Physicians' Services	88.47	34.37	54.10	32.97	21.06	.07
Dentists' Services	28.87	24.80	4.07	2.48	1.59	.00
Drugs and Sundries	45.14	38.86	6.28	2.58	3.70	.00
All Other Services [b]	67.46	30.94	36.52	2.26	31.03	3.23

Source: Nancy Worthington, "National Health Expenditures, 1929-74," Social Security Bulletin, February 1975, p. 14.

[a] This figure for personal health care expenditures does not include the cost of prepayment and administration of health insurance.

[b] Includes other professional services, eyeglasses and appliances, nursing home care, and other services not classified elsewhere.

consumers by the fact that their direct payments for hospital expenses are such a small portion of the total. From the point of view of a consumer paying his medical bills, hospital care is the least costly type of health service, even though, from the point of view of the nation, hospital care is more than twice as expensive as any other health care.

Since only about 11% of the population under 65 has insurance for dental care,[1] it is not surprising that consumers must pay directly over 86% of their dentist bills. Nearly 65% of the population under 65 has insurance coverage for out-of-hospital prescribed drugs,[2] but such coverage is limited and, of course, does not cover non-prescription drugs. Hence, consumers must pay on their own 86% of their expenses for drugs and sundries.

Of total personal health care expenditures, the portion that consumers have had to pay out-of-pocket has shrunk from 68% in 1950 to 35% in 1974. Yet, while consumers are paying directly an ever smaller percentage of their health care costs, direct payments are costing consumers ever larger sums of money: Per capita out-of-pocket health expenditures have climbed from $46.89 in 1950 to $148.86 in 1974. (See Exhibit III-19.)

Not only has there been a steep rise in consumers' out-of-pocket health care costs, but health insurance premiums are costing consumers a mounting portion of their income. In 1950 health insurance premiums constituted 0.9% of disposable personal income; by 1960 they had risen to 2.1% and by 1973 to 3.2%.[3] Some people feel that health insurance is becoming so expensive that many people in the lower-to-middle income brackets cannot afford the protection even if their employers do absorb part of the cost.

The cost of administering health insurance has also been climbing. The per capita cost of prepayment and administration of health insurance rose from $1.89 in 1950 to $7.26 in 1966 to $19.67 in 1974. As with so many other health care costs, insurance administration costs have risen much more rapidly in the

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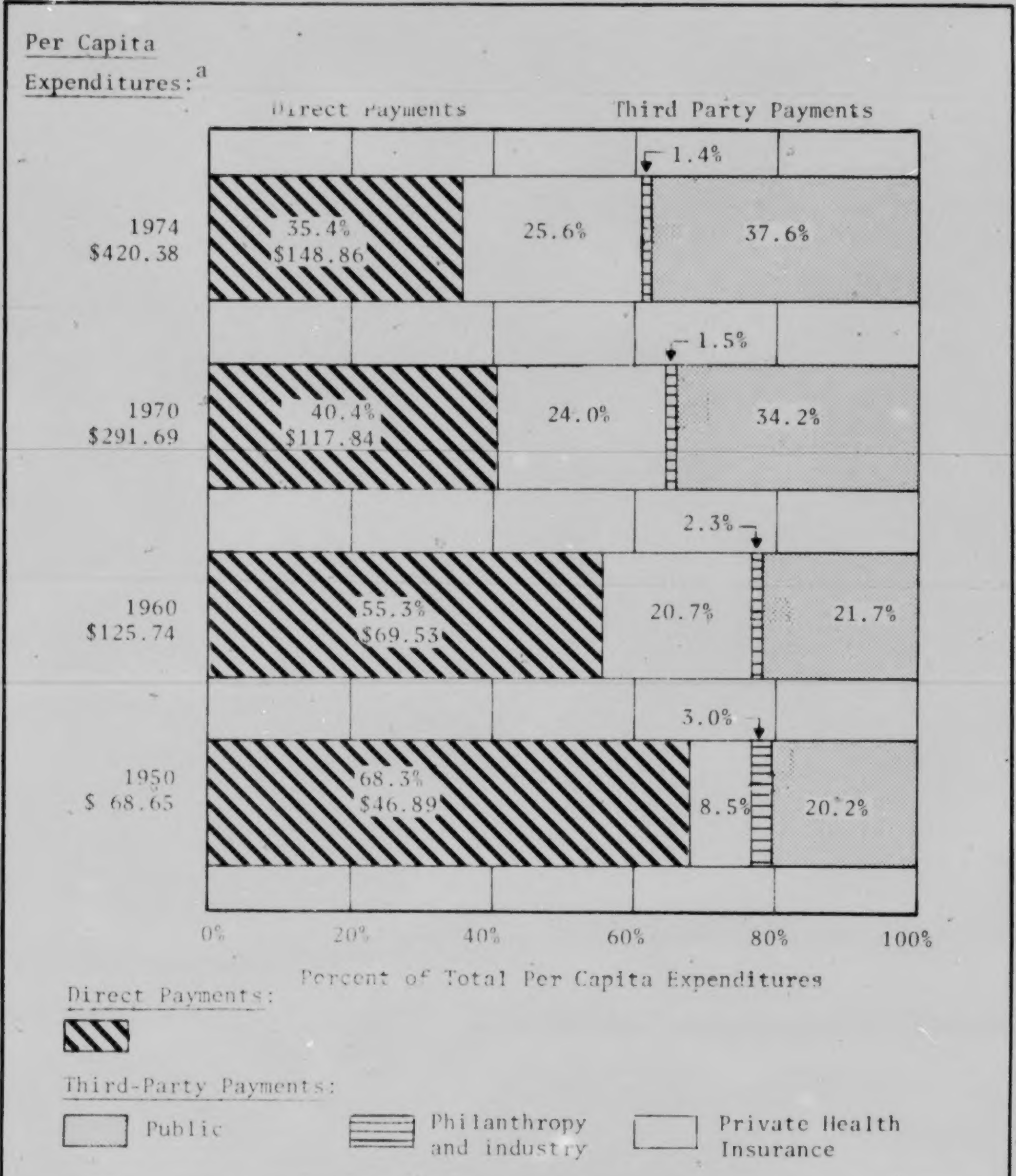
[1] Mueller, op. cit., p. 22.

[2] Ibid.

[3] Health Insurance Institute, op. cit., p. 49.

Exhibit III-19

SOURCE OF FUNDS FOR TOTAL PERSONAL HEALTH EXPENDITURES: SELECTED FISCAL YEARS 1950 - 1974



Source: Nancy Worthington, "National Health Expenditures, 1929-74," Social Security Bulletin, February 1975, pp. 13, 17.

[a] Expenditures for health services and supplies exclusive of those for government health activities and expenses for prepayment and administration of insurance.

post-Medicare years than they did earlier. Per capita expenses for prepayment and administration rose 64% between 1960 and 1966 but climbed 106% in the six years between 1968 and 1974. Expenses for prepayment and administration were 3.4% of total health expenditures in 1966 but had risen to 4.0% in 1974.[1]

Operating expenses average 13.7% of premiums for all health insurers, but there is considerable variation. Blue Cross/Blue Shield's operating expenses were 7.0% of premium income in 1973, and independent plans' were 7.6%. With insurance companies' group policies, operating expenses were 13% of premium income, but, with their individual policies, operating expenses consumed 47% of premium income.[2] No wonder holders of individual health insurance policies are getting such poor coverage for their high premiums!

Over 60% of the benefit payments by all insurance companies went for hospital care, and just over 30% went for physician services. However, the ratios were quite different for the independent plans; of their benefit payments, 38% went for hospital care, 41% went for physician services, and 15% went for dental care.[3] This, of course, reflects the fact that independent plans often cover a pre-paid group medical practice and increasingly also a pre-paid group dental practice.

IMPACT OF HEALTH INSURANCE ON THE DEMAND FOR HEALTH CARE AND ITS COST

With ever more comprehensive health insurance coverage, patients can not only afford more health care, but they have little incentive to seek that care in the most economical manner. Since the consumer's out-of-pocket cost for hospital care is so low, he sees no reason not to get the best care and is generally oblivious of the ultimate impact of costly care on his health insurance premiums. "Because we are called on to insure expensive procedures, we are providing incentives for their use."[1] "This induced demand for expensive care gives a false signal to hospitals about the type of care that the public wants. Unfortunately, the production of high-cost hospital care is a self-reinforcing process: The risk of very expensive hospital care stimulates patients to prepay hospital bills through relatively comprehensive insurance, while the growth of such insurance makes hospital care more expensive. In short, our current method of financing hospital care does not give consumers an opportunity to register their preferences between higher and lower cost hospital care... The rapid growth of the Kaiser-Permanente health programs [discussed later in this chapter] supports the view that, when patients can choose in advance, many of them will select a system in which costs and the quantity of services are lower."[2]

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[1] Worthington, op. cit., p. 13.

[2] Mueller, op. cit., p. 32.

[3] Ibid., p. 34.

The fact that health insurance covers some services and not others causes distortion in the utilization of services. When insurance covers a procedure given on an expensive inpatient basis but does not cover the same procedure on a less expensive outpatient basis, the patient naturally will elect to get the required care on an inpatient basis, for that way it is cheaper to him even though more expensive in terms of the cost to society. Recognizing the distortion in demand created by such vagaries in insurance coverage, health insurers have greatly enlarged their coverage of outpatient care and have thereby reduced the artificially high demand for inpatient care. Studies have shown that subsidizing consumers' use of outpatient care leads to sizeable shifts from inpatient to outpatient care,[3] and indeed by 1974

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[1] Rashi Fein, "On Achieving Access and Equity in Health Care," *Milbank Memorial Fund Quarterly*, October 1972, p. 168.

[2] Martin Feldstein, *The Rising Cost of Hospital Care* (Washington, D.C.: Information Resources Press, 1971), p. 76.

[3] Karen Davis and Louise Russell, "The Substitution of Outpatient Care for Inpatient Care," *The Review of Economics and Statistics*, May 1972, p. 119.

Massachusetts Blue Cross was paying 8 outpatient claims for every 2 inpatient claims.[1]

However, distortions continue to exist: Since insurance coverage is generally better for hospital care than physician services, hospital utilization has been rising, particularly since Medicare and Medicaid were introduced, but there has not been a matching rise in physician visits. When we get seriously ill in this country, we are generally able to get the hospital care we need, even if our income is low; but financial barriers seem to hinder some of the population from going to the doctor early enough and frequently enough to prevent treatable maladies from reaching the point where hospitalization is necessary.

There is a crying need for more dental care not only among our low income groups, but also among those with a middle level income. As was shown in Exhibit I-7 in Chapter I, only 33% of those with a low income and 41% of those with a middle income went to a dentist sometime during 1973. Yet 59% of those with a high income had seen their dentist during the year. Obviously a major reason for the inadequate dental care being received by large segments of our population is the fact that coverage for dental services is so poor not only by health insurance policies but also by Medicare and Medicaid. (It should be noted in passing that consumers on the boards of neighborhood health centers have been vociferous in their demand for more dental care in the centers. The doctors working in the centers tend to favor an expansion of mental health services, while the patients are generally far more concerned about dental services.)

The expansion of major medical insurance may have an unfortunate side effect on the health care system. Such insurance can, of course, rescue a family from the devastating financial impact of a medical disaster that otherwise could cause financial problems even for a wealthy family. But major medical insurance does push the health care system into devoting a large portion of its resources to caring for relatively rare medical catastrophes and thereby tends to foster neglect of routine care for larger numbers of the population. Insurance coverage of routine care is far less extensive than coverage for major medical problems, and the difference in insurance coverage affects the focus of health care in this country.

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[1] Massachusetts Hospital Association, Monday Report, June 17, 1974.

In general then, the priorities in our health care system have not been determined by consumers in their role either as patients or as voters; our priorities have been shaped by third parties who have paid inadequate attention to the ultimate effect of the insurance coverage they are offering.

The third parties have also been insufficiently concerned about the cost of the care they were insuring. For years the Blues and commercial insurance companies blithely reimbursed hospitals for their incurred costs without raising any serious questions about the rapid escalation in those costs. Fired by a passion for offering the best possible care in their institution, hospitals were incessantly adding to their equipment and expanding their facilities without giving much thought to the cost of these improvements. The costs didn't concern the hospital, which could pass them on to the third parties, and the third parties weren't worried about them because they could pass them on in higher premiums. The situation was aggravated by the fact that Blue Cross boards tended to be dominated by hospital trustees, senior medical staff, and others representing the providers who wanted to make these costly improvements. "Given the coinciding interests, attitudes, and personal contacts of many hospital administrators and of the Blue Cross people, it is not too harsh to say that 'the hospital people' were given their own ticket to write. They could, and did, expand their buildings, take on new staff, invest in fancy electronic equipment, make generous settlements with the unions -- and could be paid whatever the bill came to... just as long as the friendly fellows at Blue Cross or at the insurance company said it was OK..."[1]

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[1] Hodgson, op. cit., p. 53.

Extensive health insurance has also tended to make the medical profession unconcerned about costs. The doctor could pressure "his" hospital to install elaborate facilities because the hospital could always pass on the cost of those facilities to the third parties. Knowing that his patients were insured, the doctor could prescribe all sorts of treatment without being concerned about the cost to the patient. Since it is the doctor, not the patient, who determined the utilization of many health services, it is primarily at the doctor's door that should be laid the blame for any excess utilization of expensive services.[1]

Alarm over the rising cost of Medicare, Medicaid, and health insurance premiums is now changing all this. As was indicated in Chapter II, both the federal and state governments are making some efforts to curb the rise in hospital costs, and Blue Cross itself has undertaken increasingly stringent measures to cool the boom psychology that pervaded the hospital system in the 1960's.

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[1] Of course, the doctors argue that, if they have ordered unnecessary services, it was to protect themselves from malpractice suits.

USE OF HEALTH INSURANCE TO CONTROL COSTS

Health insurance, which has played an important role in pushing up the cost of health care, is now being used to curb those costs. Insurers are moving away from retrospective reimbursement, in which health care institutions are reimbursed on the basis of charges or incurred costs and have no incentive to keep their charges or costs low; instead, insurers (and state rate regulators) are beginning to experiment with prospective reimbursement, which is based on cost projections and gives providers an incentive to live within their projected budgets. Other efforts by health insurers to cut costs are similar to those employed by federal and state governments to curb unnecessary construction or use of hospital facilities.

REIMBURSEMENT SYSTEMS

Reimbursement can take three basic forms. The traditional form is simply that of payment on the basis of stated charges. This is the primary means of payment in most industries and is generally the method by which the commercial insurance companies make reimbursements for health care.

Blue Cross and the federal government, however, have used a second reimbursement system, namely reimbursement on the basis of the incurred costs of the institution. "In a very general way, such a cost-based system results in payment to the institution of the same proportion of its total costs as is represented by that proportion of its total volume covered by that particular plan. Stated another way, cost-based reimbursement systems result in payment for charges for the services delivered less the differences between average costs and average charges for that particular service. Viewed from either direction, cost-based reimbursement systems result in payment at a discount from the stated charge as long as costs are less than stated charges."[1] However, payment is based on costs or charges, whichever is lower; hence, an institution may not be reimbursed for the full cost of a service if the charge for the service is less than the actual cost.

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[1] J.B. Silvers and the staff of the Cambridge Research Institute, "The Changing Financial Environment of the Health Delivery Industry," unpublished monograph, June 1, 1975, p. 18.

Since charges for most services tend to be somewhat higher than the cost -- as they are in any industry --, the commercial insurance companies have protested that their rivals in Blue Cross, when using the "lower of cost or charges" system, pay the hospital only 85-88% of the regular charges, while commercial insurance companies must reimburse the patient for the full charges.[1] Thus, the commercial companies feel that they are, in effect, subsidizing the Blue Cross members' use of hospitals.

Of greater concern to the economy as a whole is the fact that payment on the basis of incurred costs eliminates any incentive to keep those costs low. As long as a health care provider keeps his charges higher than his cost, the third party will reimburse the provider for all his costs no matter how rapidly they rise.

Because reimbursement on the basis of either charges or incurred costs was fostering a frenzied escalation in health care costs, a third system of reimbursement is being tried by a few Blue Cross plans and by rate regulators in some states: incentive reimbursement or prospective budgeting. This system provides some incentive to hospitals to operate within a reimbursement formula negotiated prior to the actual period involved. Prospective reimbursement is normally used rather than the traditional retrospective reimbursement: Retrospective reimbursement is based on costs or charges in the current, or immediately preceding, period while prospective reimbursement is based on estimates of future costs.

Incentive reimbursement generally rewards hospitals which keep costs below the predetermined ceiling by allowing them to keep at least a portion of the difference between their actual costs and the prescribed cost ceiling. These hospitals can then use their surpluses either for capital expenditures or for general operating funds. Institutions whose costs exceed the ceiling must sustain an operating loss, and repeated losses may in time result in the demise of the institution.

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[1] "Aid for Blue Cross in Nixon's Plan," Business Week, February 27, 1971, p. 94.

Prospective budgeting demands of health care providers careful planning and more rigorous fiscal management, with better forecasting and budgeting and tighter cost controls. It encourages institutions to identify and monitor the cost implications of the quantity, quality, and scope of their services.

When prospective reimbursement is used as an incentive to keep costs down, a variety of formulas is possible:

- Target rates of increase are set, with costs not allowed to increase more than a prescribed percentage over costs in a base period. Target rates may be set on total costs or on a line-item basis.
- A hospital's budget for the coming period is agreed on in advance by the individual institution and the rate-setting body.
  - The agreed-upon budget may be for the institution as a whole, for the individual departments, or on a capitation basis (that is, a fixed sum per patient served by the institution). The capitation basis is generally feasible only with an institution serving an HMO or some other prepaid group practice. Prospective budgeting done by department focuses attention on departments where costs or productivity are out of line. "Given the difficulty of identifying and measuring all of the relevant dimensions of hospital output (especially quality), a case can be made for using the departmental budget or specific services payment unit for departments where output can be measured (or where quality is not a problem) and some other form of reimbursement for those where it cannot."[1]
  - In reviewing a hospital's budget, operating costs are sometimes considered separately from capital costs, teaching programs, bad

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[1] William Dowling, "Prospective Reimbursement of Hospitals," Inquiry, September 1974, p. 168.

debts, etc. "One advantage of this approach is that hospital costs are more comparable, and inefficient hospitals more visible, when non-direct patient care costs are separated from their budgets."[1]

With an incentive system using prospective budgeting, a hospital would simply receive, each month, the third party payer's share of one-twelfth of the total amount agreed upon in advance.

- An institution may be reimbursed a predetermined amount per case, per patient day, or per service provided.

Sometimes retrospective reimbursement is also used to provide at least a negative incentive to health care providers to keep their costs or charges down. The provider is not rewarded for operating within his budget, but he is penalized if his costs or charges rise above a certain level. For example, Blue Shield plans usually will reimburse physicians only a specified amount for various procedures, and the physician who charges more must collect the additional amount from his patients. In some cases, for example in the medical foundations discussed later in this chapter, the physician is limited to the fee paid by the third party reimburser and is not allowed to collect additional fees from patients. As indicated in Chapter II, Medicare also sets limits on the fees and costs it will reimburse doctors and hospitals.

When cost incentives are built into retrospective reimbursement, the limits on reimbursement are set at a certain percentile of the prevailing physician fees in an area or of the incurred costs of the hospitals in a given category. Fees or costs that are near the norm (or less than the norm) are reimbursed in full, but the physician or hospital whose fees or costs are far above the norm will not be reimbursed the full amount. The providers thus have a negative incentive not to stray too far above the average for their group. However, the providers whose costs or fees are below the average have every incentive to raise them up to the prescribed limit. And, if all the providers move their fees or costs up at about the same time, the average rises and with it the size of the allowed reimbursements.

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[1] Dowling, op.cit., p. 178.

There are drawbacks to all these reimbursement systems. Prospective reimbursement poses problems because of the difficulty of forecasting all the factors that affect costs. For example, some allowance must be made for cost increases beyond the control of the institution, such as increases in fuel or electricity costs. If reimbursement is based on a target rate of increase or on the hospital's budget, the system needs some built-in allowance for variances in the volume of care provided: An institution receiving either far more or far fewer patients than expected will have cost problems that will require some adjustment in reimbursement. This is less of a problem if prospective reimbursement is on the basis of patient days, cases treated, or services provided, but even with this system there are problems if the institution's case mix changes and a larger percentage of its patients have complex maladies requiring more expensive care.

This illustrates another problem with incentive reimbursement systems. How can the system take into account the legitimate cost differences between institutions serving different mixes of patients? When reimbursement is based on agreements between individual institutions and the rate setters, this problem is alleviated. However, if reimbursement is based on averages for groups of institutions, as Medicare is currently doing, sufficient allowance may not be made for differences in the costs or the cost increases facing institutions in different locations or with different types of equipment or personnel.

On the other hand, reimbursement schemes based on negotiations with individual institutions may put a tighter rein on institutions with less bargaining power than their more influential competitors. In some cases, prospective budgets are simply presented by individual institutions and are accepted by rate-setters if they appear reasonable. In other cases, there are extensive negotiations and provision for arbitration if agreement is not reached.

In such a situation, an institution's political power may be as important as its operating efficiency.

Incentive reimbursement may tempt providers into playing accounting or other types of games in order to beat the formula. Another danger is that a hospital, in seeking to keep within the limits set by the system, may go beyond eliminating unnecessary frills and lower the essential quality of the care it provides. Hospitals might be tempted to emphasize the treatment of patients requiring relatively inexpensive care. Or, if utilization controls are inadequate, hospitals might provide unnecessary services or prolong hospitalization unnecessarily in order to be reimbursed for the extra care provided or to lower the average cost of the care provided. Incentive reimbursement systems really need to be accompanied by effective utilization controls and by some means of measuring the quantity of necessary service provided, the quality of that service, and the efficiency with which it is delivered.

Agreeing on equitable formulas for measuring performance is a difficult area. "This can be illustrated by the Blue Cross of Virginia plan to reward hospitals that achieved a lower rate of cost increase than the state average. When the rewards were calculated, it turned out that many hospitals generally known to have been operating near the peak of their efficiency weren't eligible to receive the rewards. On the other hand, many hospitals known to be inefficient, or whose operating costs had happened to peak sharply during the previous year, profited. They had greater leeway in which to cut cost increases without hurting. Furthermore, a spokesman for the plan states, 'In many situations, hospitals apparently backed into additional reimbursement through no visible efforts, while others were excluded because their average per diem costs were already well in line.'"[1]

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[1] Katharine Bauer and Paul Densen, "Some Issues in the Incentive Reimbursement Approach to Cost Containment: An Overview," Medical Care Review, January 1974, p. 80.

Devising reasonable measuring sticks and negotiating prospective budgets is a time-consuming and costly process requiring a skilled staff and detailed financial and utilization data. Obviously the effort is not worthwhile unless the cost-savings are greater than the expense of the process. There is also some doubt about how effective incentives can be in reducing costs. Will the incentives be large enough to inspire really vigorous cost-cutting efforts by the institutions? If the rewards are too large, they will eat up any cost savings. Will there be sufficiently quick feedback of incentives to affect action? As of January 1973 the Rhode Island Blue Cross still had not been able to calculate the incentive payments due hospitals in its 1971 target budget contract, and this example is typical.[1] Won't incentives tend to disappear over time as both hospitals and third party negotiators become more adept at projecting target budgets more accurately and the margin for "savings" from ending the year under budget declines?[2]

Perhaps a greater problem is the fact that the incentives are directed to provider institutions, not to the individual decision-makers within them and above all not to the physicians who make the great majority of decisions that ultimately determine the cost-effectiveness of health delivery.[3] Administrators might, however, be able to gain physician support for cost-cutting efforts if funds for adding services depended on the ability of hospitals to earn surpluses or if (as Representative Mills proposed in 1974) hospitals were required to share any surpluses earned under incentive reimbursement with their employees and physicians. And administrators' efforts would be heeded better if all the hospitals in an area were under a single prospective reimbursement scheme, for this would reduce the possibility of doctors' moving their patients to less demanding hospitals.[4]

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[1] Bauer and Densen, op. cit., p. 85.

[2] Ibid., p. 85.

[3] Ibid., p. 84.

[4] Dowling, op. cit., p. 170.

But can the incentives for cost-cutting be made great enough to outweigh the countervailing incentives? "The prestige of a hospital does not stem from its ability to operate with the highest of economy, but from its reputation as the source of effective medical care. It attracts better physicians by offering them better facilities and training opportunities. The physicians attract the patients. The larger and more complex the institution and the larger its budget, the higher is the salary of its administrator. These are the facts of life in our present system of health services, and we delude ourselves if we think that essential priorities are going to be changed by the offering of some financial reward that is insignificant in size, two years late in coming, and rarely directed to the people within the institution who are making the cost consequential decisions."[1]

OTHER THIRD PARTY COST CONTROLS

Health insurers are going beyond reimbursement schemes in their efforts to slow down the cost escalation in the U.S. health care system. However, the weapon wielded by third parties to enforce their demands is their ability to withhold reimbursement from providers who fail to conform. The demands made vary from place to place, and they differ considerably in the rigor with which they are enforced and in their effectiveness.

Some Blue Cross plans, like Medicare, require hospitals to prepare budgets and long-range plans, and this at least causes providers to think about their cost problems. More effective efforts to curb costs are the requirement of many Blue Cross plans (and of Medicare) that hospitals obtain prior approval for construction of new facilities or the introduction of new services. Pioneered by the Northeast Ohio Blue Cross as early as 1950, this requirement is now reinforced in a number of states by Certificate of Need laws. (See Chapter II.) Hospitals which do not obtain the required approval are not reimbursed for any costs connected with the construction of the unapproved facility.

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[1] Bauer and Densen, op.cit., p. 87.

The Philadelphia Blue Cross has gone even further by requiring continuing reviews of existing facilities and services and phasing out reimbursement for any service or facility found to be inadequate or not needed. The Massachusetts Blue Cross has also acted to cease reimbursement for a hospital considered obsolete and unnecessary.[1] The New York City Blue Cross proposes to refuse reimbursement for excess costs resulting from the operation of under-utilized facilities or services when comparable ones are readily available elsewhere.[2] Some Blue Cross plans use their clout to promote mergers and the sharing of services among hospitals, but such efforts usually inspire strong resistance from alarmed medical staff, irate boards of trustees, and aroused hospital constituencies.

More acceptable politically are Blue Cross efforts to promote the efficiency of operations within institutions. Some Blue Cross plans have encouraged hospitals to hire industrial engineering consultants to help them improve their operations, construct norms, and monitor subsequent performance against these norms. Hospitals are allowed to share in any savings effected, while those who exceed the norms may have their reimbursement reduced. The Social Security Administration has also experimented with this approach in some states. However, these programs are voluntary, and, as a rule, very few hospitals elect to participate in them. Also industrial engineering efforts tend to be directed at the hotel department of hospitals, those directly under the supervision of hospital administrators, and usually steer clear of laboratory, X-ray, operating room, and other cost centers where major decisions are made by physicians. Yet it is in these latter departments that costs are generally considered to be most out of control.[3]

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[1] "Massachusetts, Philadelphia Plans Take Action Against Hospitals," Hospitals, January 1, 1973.

[2] Bauer and Densen, op.cit., p. 72.

[3] Bauer and Densen, op.cit., pp. 73-75.

Like Medicare, many Blue Cross plans require utilization review procedures to ensure that patients are not hospitalized unnecessarily or for longer than necessary. In some areas Blue Cross devised special incentive rewards for hospitals which reduced their length of stay below group averages. The expansion of health insurance coverage of outpatient care also helps curb hospital costs by encouraging patients to get the necessary treatment on an outpatient basis as much as possible.

The various efforts by Blue Cross to curb hospital costs have, for the most part, been of limited effectiveness. One reason for this is the fact that Blue Cross boards are generally dominated by health care providers and thus tend to take a lenient view of requests for rate increases. As Dr. Denenberg, the former Insurance Commissioner of Pennsylvania, has pointed out, "Traditionally and historically, the Blues are very close to the hospitals, and [controlling rate increases] required an adversary plan."[1] In many areas the Blues do not have sufficient leverage because they insure only a small segment of the population: When health insurance is divided among several carriers, no carrier is in a position to exert much control. Even when the Blues dominate health insurance in an area, they may be powerless to control the hospitals if the hospitals present a united front. When the Blues have enjoyed some success in reining in costs, it has generally been because they were backed by a vigorous state insurance commissioner, such as Denenberg in Pennsylvania.

The general ineffectiveness of the Blues in dampening hospital cost inflation has pushed the states into more vigorous efforts to curb costs through rate-setting and Certificate of Need laws. In some states, rate regulators rely on the budget review program or the rate-setting formula of Blue Cross or the state hospital association, but the state gives these programs increased impact by mandating hospital participation, establishing guidelines for the programs, and/or serving as final appeal for hospitals and rate-setting organizations.[1] The federal government, too, is increasingly moving onto the scene with its Medicare requirements, its comprehensive health planning laws, and PSRO's. These government programs often benefit from lessons learned in earlier efforts by the Blues and apply some muscle to the Blues' tentative endeavors. But cost control efforts to date still are generally limited in their approach, medication applied experimentally to the more obvious symptoms in the more accessible areas. However, although the fever of escalating health care costs has by no means been cured, clearly the days of carefree spending are gone for the U.S. health care system.

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[1] Linda Murray, "Economic Shifts Spur Demand for Curbs on 'Blues'", Medical Tribune, March 5, 1975.

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[1] Dowling, op. cit., p. 176.

NATIONAL HEALTH INSURANCE (NHI)

To provide protection for those inadequately covered by current health insurance programs, National Health Insurance has been repeatedly proposed. These proposals vary considerably, for many issues have not been resolved about the form National Health Insurance should take.

Current health insurance programs have three major deficiencies:

(1) Many of the poor and near poor have no health insurance. Medicaid coverage varies greatly from state to state and generally does not provide enough benefits or protect all those in the population who need it.

(2) Those who do have health insurance often have inadequate protection for catastrophic illnesses. Even Medicare puts limits on the number of hospital days and nursing home days it will cover.

(3) Current health insurance pushes the system into emphasizing high cost care, discourages preventive medicine, and does nothing to promote efficiency.

As can be seen in Exhibit III-20, a number of proposals have been made for a National Health Insurance (NHI) program that will remedy at least some of the deficiencies in the current insurance coverage. The most limited proposal is that introduced by Senators Long and Ribicoff. This would leave existing private insurance intact, but would create two new federally administered programs: catastrophic illness insurance which would provide protection for everyone covered by Social Security and would be administered by the Social Security Administration; and a federal medical assistance plan providing protection for the poor and medically indigent and replacing Medicaid. Most of the other proposals would provide comprehensive health insurance protection for all U.S. residents, although different insurance plans would cover different segments of the population. In general, the proposals would provide one plan for the employed (paid for by joint employer-employee contributions) and separate plans for the aged (an improved Medicare) and for the poor and medically indigent (replacing Medicaid).

Exhibit III-20

COMPARISON OF SEVEN PROPOSALS FOR NATIONAL HEALTH INSURANCE
(BILLS INTRODUCED IN THE 93RD CONGRESS AS OF JULY 1974)

Page 1 of 3

Type of Bill, Title, Number, Sponsor(s) / Provisions	Mixed Public and Private			Mainly Public		Tax Credits	Catastrophic Protection
	Comprehensive Health Insurance Act	National Health Care Services Reorganization and Financing Act	National Health Care Act	Health Security Act	Comprehensive National Health Insurance Act	Health Care Insurance Act ("Medicredit")	Catastrophic Health Insurance and Medical Assistance Reform Act
	S.2970/H.R.12684	H.R.1	S.1100/H.R.5200	S.3/H.R.22	S.3286/H.R.13870	S.444/H.R.2222	S.2513/H.R.14079
	Packwood-Mills-Schneebeli	Ullman	McIntyre-Burleson	Kennedy-Griffiths	Kennedy-Mills	Hartke-Fulton-Broyhill	Long-Ribicoff Waggonner
General Concept and Approach	Comprehensive health insurance protection for all Americans consisting of separate plans for the aged (an improved federal Medicare program), the employed (required of employers), and all others (low-income, high medical risk and others). Endorsed by the Nixon Administration.	Comprehensive health insurance protection for all Americans consisting of two programs: 1) plan requiring employers to provide private coverage for employees and dependents, 2) federally contracted coverage for the aged and low-income and medically indigent (expansion of Medicare). Supported by AHA.	Three-part voluntary plan: 1) employer-employee plan (with increased federal income tax deductions), 2) an individual plan for persons who voluntarily elect, 3) a state plan for the poor and uninsurable. All plans administered through private carriers and must meet minimum federal benefits standards. Supported by insurance industry.	A program providing broad benefits for all U.S. residents, administered by Federal government and financed by payroll taxes and general revenues. Supported by AFL-CIO.	Two-part program: 1) a national health insurance plan for the general population and 2) a revised Medicare program for aged and disabled, including a new long-term care benefit plan. Administered by a new independent SSA.	Federal government would pay for the poor, and allow income tax credits for all others toward purchase of qualified private plans. Would require employers to provide qualified policies to retain favorable tax treatment. Medicare would continue as at present. Supported by AMA.	Catastrophic illness plan for all persons covered by the Social Security System, administered by SSA, would supplement existing private protection. Federal medical assistance plan for poor and medically indigent would replace Medicaid. Participation is voluntary.
Coverage of the Population	Full-time employees, including employees of state and local governments; the self-employed and non-working families, individuals and non-employer groups through private carriers; low-income and high risk families through a federally assisted plan; disabled persons; aged persons eligible under Medicare.	Private plans would cover employees and their families and individuals who elect coverage. Federal plan would cover low-income and medically-indigent families, and the aged.	State plans would cover the poor and uninsurable. Private plans cover employees (and dependents) of employers who voluntarily elect coverage under a qualified plan. Individual plan covers persons who voluntarily elect.	All U.S. residents	All persons insured or eligible under Social Security, working full-time, or under the AFDC or SSI program would be eligible through contributions to the system. Aged and disabled covered under Medicare.	All U.S. residents, on a voluntary basis.	Catastrophic plan would cover persons of all ages insured or receiving benefits under Social Security. Medical Assistance Plan for low-income.
Scope of Benefits	Hospital services (inpatient and outpatient), skilled nursing facilty (100 days/yr.), physicians, dentists (up to age 13), lab and x-ray, home health services (100 visits/yr.), family planning, maternity care, wellchild care (under age 6), prescription drugs, medical supplies and appliances, eyeglasses and hearing aids (and eye and ear exams) for children under age 13. For the employed, $150 deductible (maximum of 3 per family) and 25% coinsurance with maximum of $1500/yr. Reduced deductible and coinsurance for the aged and all other plans.	Benefits phased in over 5-year period. Would include periodic health evaluations, physicians services and ancillary care, other outpatient services, inpatient services in hospitals, extended care facilities and nursing homes, prescription drugs, medical equipment and supplies. Most services limited and have a per day or per visit copayment. Catastrophic coverage payable when certain noncovered expenses reach a specified limit; would remove the cost sharing on all benefits and the limitation on number of hospital days and physicians visits.	Phased-in standards for comprehensive care to be incorporated in the state health plans (5-years) and policies offered to employers and self-employed (10 years). Deductibles and coinsurance are used. For employee-employer plan, annual limit for cost sharing of $1000/family. For individual plans, no limit, little or no cost sharing for low-income.	Comprehensive benefits with phased in coverage of dental care. No deductibles, co-insurance or maximums	Practically all medical services with special and preventive services for children (dentists wellchild care, eyeglasses and hearing aids). For the employed, a $150 deductible (maximum of 2 per family) and 25% coinsurance with maximum of $1000 per year. Reduced deductibles and coinsurance for low-income participants.	Tax credits of 10 to 100% of cost of qualified policy, depending on annual tax payments. Benefits include 60 days of hospitalization (with days in skilled nursing facility counting as ½ hospital day), home health services, ambulance, emergency and outpatient services, physicians services, dental care up to age 17, catastrophic coverage (unlimited hospital days, an add'l 30 days in skilled nursing facility, prosthetic devices and blood after 3 pints). Coinsurance and deductibles.	Under catastrophic plan, payment of medical costs after 60 hospital days or medical expenses of $2000 per family. Coinsurance with a maximum of $1000/family. Low-income plan would provide comprehensive coverage with limited copayments.

Exhibit III-20

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	Packwood-Mills-Schneebeli	Ullman	McIntyre-Burleson	Kennedy-Criffiths	Kennedy-Mills	Hartke-Fulton-Broyhill	Long-Ribicoff-Waggonner
Financing	Employed plan through premiums paid by employers (at least 65%, increasing to 75%) and employees, with Federal subsidy in high cost cases. Continuation of Medicare financing as is. All others plan through graduated premium payments and state and federal sharing from general revenue.	Employer-employee premium payments (employers pay at least 75%). Federal subsidies in some cases. Individuals pay own premium. Plan for low-income and aged financed in part by premium payments by medically indigent (no premium for lowest income group); balance financed by general revenues and payroll taxes of present Medicare program.	For state health plans, graduated premium payment from those covered, state contributions and federal matching payments from general revenue. All others through employer/employee contributions which would be tax deductible if plans meet standards.	3.5% tax on total payrolls paid by employers. 1% tax on first $15,000 of wages paid by employees (adjusted for changes in Social Security wage base); and 2.5% tax on self-employed. Matching federal payment from general revenues.	3% tax on employers' payrolls and 1% employee tax using annual taxable wage base of $20,000. 2.5% tax on self-employed. General revenues used to cover waived deductible and coinsurance payments for low-income participants.	Tax credits financed from Federal general revenues. Costs of health insurance for the poor financed from general revenues.	For catastrophic plan, an add'l .3% in Social Security tax on both employers and employees (increasing to .4%). Sharing of the low-income plan cost between states and federal from general revenue with a ceiling on state costs.
Administration	For employee plan, insurance through private carriers, supervised by states under Federal regulations. Assisted plan for low-income administered by states under Federal regulations. Plan for aged administered by Federal government.	Private plans administered by private insurance carriers under state supervision, according to federal guidelines. Plan for low-income and aged administered by Federal government who would contract with private carriers.	Private plans administered by private carriers under state supervision. Treasury Department determines tax status of plan. State plans administered by private carriers under agreement with state. Regulations established by HEW.	Federal government by a Health Security Board in HEW. Regional and local offices to operate program. Would substantially supplant private insurance	Administered by independent SSA (no longer part of HEW) in manner similar to present Medicare, using insurance carriers to process claims (but with new standards for carriers). New community centers would provide long-term Medicare benefits, supervised by state agency, with SSA having final authority.	Private insurance companies administer their own approved policies. State insurance departments certify carriers, qualified policies. HEW issues voucher certificates. A new federal Health Insurance "Advisory" Board establishes standards.	Administered through Medicare program, under which private carriers handle claims and pay providers.
Reimbursement of Providers	States would establish prospective reimbursement rates for hospitals, according to federal procedures and criteria.	For institutions and health care corporations, state commission (under federal regulations) would prospectively approve charges based on budget review and schedule of proposed charges. For physicians and other professionals, state commission would approve reasonable fee, salaries or other compensation.	Hospitals and other institutions: prospectively approved rates for various categories. Hospitals prepare budgets and schedule of charges, reviewed by a State commission which approves or disapproves. Subject to HEW review. Physicians and dentists; reasonable charges based on customary and prevailing rates.	Total area budget established for all services. Hospitals, skilled nursing homes, home health agencies paid on basis of negotiated budget designed to pay reasonable costs. HMO's and foundations paid by capitation or approved budget. Physicians and dentists paid on fee-for-service basis or by capitation (payments from earmarked portion of total area budget).	Payments to institutions on basis of variety of prospective payment systems (developed by SSA) with incentive payments to better performing providers. Payments to physicians and other professionals on basis of fee schedules established by respective medical societies and approved by SSA.	Usual and customary charges for all services, including hospital and extended care.	Same reimbursement controls as under Medicare. Controls would include payment of audited "reasonable costs or charges". For Medical Assistance Program, physicians and other providers must accept plan's payment as payment in full.
Delivery and Resources	Option available to enroll in approved prepaid practice plan. State regulation of insurance carriers (approval of premiums, disclosure requirements, annual audit, etc.) and providers (standards for participation, approval for capital spending, etc.). PSRO applies to all services under program and extends to outpatient services.	State health commission establishes state plan. Health Care Corporations approved by state to operate in designated areas and furnish all covered services. Federal grants provided for HCC's.	Increased funding for state and local planning agencies. HMO's made available as option. Grants, loans and loan guarantees for construction and operation of ambulatory health centers. Increased loans and grants for students, with special provisions for shortage areas.	HEW responsible for health planning in cooperation with state agencies. Health resources development fund to be used for improving delivery and increasing resources. Grants for HMO's. Grants for training GP's and shortage specialties, other health occupations and development of new kinds of personnel.	State and local agency regulate services, facilities and capital expenditures of providers. PSRO's applies to all in- and out-patient services under program. HEW would certify supplemental private health insurance policies. Health resources development board to improve health resources and delivery.	No provisions.	Incorporates provisions of P.L.92-603, including HMO provisions and PSRO's. Encourages improved insurance by HEW certification of policies and establishment of insurance pools.

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	Packwood-Mills-Schneebeli		Ullman		McIntyre-Burleson		Kennedy-Griffiths		Kennedy-Mills		Hartke-Fulton-Broyhill		Long-Ribicoff-Waggonner	
Estimated Personal Health Care Expenditures, FY 75ª	$ Billions	%	$ Billions	%	$ Billions	%	$ Billions	%	$ Billions	%	$ Billions	%	$ Billions	%
Private	$60.8	55.5%	$64.2	56.3%	$62.6	56.4%	$13.3	11.4%	$32.7	29.1	$70.2	62.2%	$59.9	55.8%
Out-of-pocket	22.7	20.7	16.1	14.1	21.9	19.7	9.9	8.5	20.3	18.1	21.1	18.7	28.1	26.2
Health insurance	37.3	34.1	47.4	41.6	40.0	36.1	3.0	2.6	11.7	10.4	48.3	42.8	30.9	28.8
Other	.8	.7	.7	.6	.7	.6	.4	.3	.7	.6	.8	.7	.9	.8
Public	48.7	44.5	49.8	43.7	48.4	43.6	102.7	88.6	79.6	70.9	42.6	37.8	47.5	44.2
Private premium payments under public programs	6.3	5.8	1.2	1.1	4.4	4.0	-	-	3.3	2.9	1.7	1.5	1.7	1.6
Federal	32.2	29.4	44.5	39.0	35.8	32.2	99.4	85.7	68.8	61.3	34.4	30.5	34.6	32.2
State and local	10.2	9.3	4.1	3.6	8.2	7.4	3.3	2.8	7.5	6.7	6.5	5.8	11.2	10.4
Total	$109.5	100.0%	$114.0	100.0%	$111.0	100.0%	$116.0	100.0%	$112.3	100.0%	$112.8	100.0%	$107.4	100.0%

Sources: Financial Executives Institute, Committee on Employee Benefits, National Health Care - Financing, Administration and Delivery (New York, N.Y.: Financial Executives Institute, 1974).
Tax Foundation, Inc., Problems and Issues in National Health Insurance (New York, N.Y.: Tax Foundation, Inc., 1974).
U.S. Department of Health, Education, and Welfare, Social Security Administration, National Health Insurance Proposals: Provisions of Bills Introduced in the 93rd Congress as of July 1974 (Washington, D.C.: U.S. Government Printing Office, 1974).
U.S. Senate, Committee on Finance, National Health Insurance: Brief Outline of Pending Bills (Washington, D.C.: U.S. Government Printing Office, 1974).

ª If no national health insurance bill is passed, estimated personal health care expenditures for fiscal year 1975 are expected to total $103.0 billion. The percentage distribution between private and public funds would be: Private, 61.9% (out-of-pocket, 29.2%; health insurance, 31.5%; other, 1.2%) and Public, 38.1% (private premium payments under public programs, 1.7%; federal, 25.5%; state and local, 10.9%).

Many issues remain to be resolved, however, before a national health insurance program can be agreed upon.

Scope of benefits: The Long-Ribicoff plan would provide comprehensive coverage for those with low incomes but only catastrophic illness protection for most of the population. This would remedy two major gaps in present insurance coverage, but the emphasis on catastrophic illness protection would tend to increase the system's bias toward high cost care and would do nothing to promote efficiency in the system. The extension of Medicare to provide dialysis and transplants for people of all ages suffering permanent kidney failure has been viewed as a pilot for national insurance for catastrophic illnesses. This program has raised many questions: It is extremely costly (in 1975, the cost was over $6 million a week); none of the money is going into research on the causes or prevention of kidney diseases; the program is providing expensive treatment for all who want it regardless of age, health condition, and chance for rehabilitation; and it has encouraged patients to switch from less expensive home dialysis to more costly hospital dialysis.[1]

At the other extreme from the Long-Ribicoff plan is the Kennedy-Griffiths bill, which would provide comprehensive coverage for the entire population with coverage even for dental care phased in. Many of the other plans also include some coverage for preventive care, particularly for children. The plans which provide coverage for preventive and primary care would help shift the system from its current emphasis on high cost care, but they are likely to increase the demand for primary care so much that the health care system would be seriously strained: Physician fees would probably rise rapidly, patients would be faced with long waiting times for appointments, and/or physicians would be able to give less time to each patient.[2] The plans covering dental care, at least for children, should help remedy the inadequate dental attention received by so much of the population, but the demand for dentists' services would be increased, and with rising demand might come rising fees and greater difficulty in getting dental appointments.

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[1] B.D. Cohen, "Treatment Program Cost Questioned," Washington Post, June 17, 1975, p. A-1.

[2] A Rand study estimates that National Health Insurance could increase the demand for ambulatory physician services by 30-75% depending on the deductibles and co-insurance provisions. See: Joseph Newhouse, Charles Phelps, William Schwartz, Policy Options and the Impact of National Health Insurance (Santa Monica, Calif.: Rand, June 1974).

Co-insurance and deductibles: Except for the Kennedy-Griffiths bills, all the plans specify a deductible (a certain sum to be paid on health care bills before health insurance coverage goes into effect) and have co-insurance provisions (a certain percentage of health care bills to be paid by the beneficiary even when the care is covered). All the plans, however, set limits on the total amount a family must pay each year in co-insurance and deductibles, and co-insurance and deductibles are reduced or eliminated for low income families.

Co-insurance and deductibles are included in most plans as a way of reducing over-utilization of health services: If a patient has to pay a portion of his bill, he is less likely to seek medical attention for trivial complaints. Deductibles also reduce the cost of administering insurance, for small bills are paid in full by the citizen without ever presenting a claim to the insurer.

Co-insurance and deductibles, however, have the major drawback of discouraging not only over-utilization but necessary utilization by the poor. Co-insurance and deductibles loom as more ominous barriers to care for those with low incomes than for their wealthier compatriots. "When the provincial health service in Saskatchewan, Canada, decided to charge a trivial fee ($1.50) as a way of reducing unnecessary visits to the doctors, it found that poorer patients, especially those with large families, promptly reduced their calls on the doctor. But this was soon offset by extra visits from people who could afford the fee and knew they wouldn't have to wait in line so long."[1]

On the other hand, co-insurance and deductibles may have little effect on decisions about the use of health services when either the sums are small in proportion to the patient's income or when the services are ones whose utilization is primarily determined by physicians rather than the patient.

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[1] Blumenthal, op. cit., p. 11.

Thus, the use of hospital services is not likely to be seriously affected by co-insurance and deductibles. "Since utilization is largely physician (not patient) determined, efforts to contain the total costs of a program require that the programs be structured to provide incentives to change physician behavior. Deductibles and co-insurance (at levels that do not deter necessary care) are not likely to do that."[1] Indeed, various studies of health insurance plans have confirmed the supposition that co-insurance and deductibles have a minimal effect in reducing hospital utilization and practically no effect in reducing the amount of benefits paid by the plans involved.[2]

In sum, co-insurance and deductibles are more likely to discourage primary care than secondary or tertiary care. They are thus likely to deter the demand for that type of care most likely to be hit by a sudden escalation in demand with the introduction of National Health Insurance. But they may also discourage the preventive care that is perhaps the weakest element in the delivery of health care in this country.

Financing: Most plans would finance health care for the poor and near poor at least in part with general revenues from federal and state governments. Health care for the employed would be financed by joint employer-employee contributions. With the Packwood-Mills bill, supported by the Administration, and with some of the other bills, the employer-employee contributions would be in the form of fixed insurance premiums, of which the employer would pay 65-75% and the employee would pay the remainder. With both the Kennedy bills and with the Long-Ribicoff bill, the plan would be financed with payroll taxes paid in part by employers and in part by employees.

Fixed premiums would be regressive in their impact since they would be a heavier burden for those with low incomes than for those with higher earnings. Payroll taxes would only be imposed on incomes up to a certain level ($15-20,000), but for all those with incomes below that level the tax would be proportional -- that is, a fixed percentage of income and thus levied evenly on all wage earners below the specified income level. The principal disadvantage of payroll taxes is that they would cause the costs of NHI to be entered on the government's ledgers and thus would make National Health Insurance seem more expensive than if the costs were buried in the books of private insurers.

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[1] Fein, "On Achieving Access...," op. cit., p. 167.

[2] C. Patrick Hardwick, Larry Shuman, and Shlomo Barnoon, "Effect of Participatory Insurance on Hospital Utilization," Health Services Research, Spring 1972.

A major drawback of both premiums and payroll taxes paid in large measure by employers is that they may impose a heavy financial burden on marginal businesses, which might react by eliminating low wage jobs, by putting pressure on employees not to take insurance (if insurance is voluntary), or by hiring people with low insurance costs (part-timers, wives whose husbands are insured elsewhere, etc.). To guard against the disappearance of jobs, the Packwood-Mills bill provides a temporary government subsidy to employers for whom the health insurance requirement adds 3% or more to payroll cost.

Administration: Most proposals for National Health Insurance provide that insurance for the aged be administered by the federal government and that insurance for those with low incomes be administered either by the federal government or by states under federal regulations. However, as with Medicare at present, these government-administered plans could be contracted out to private carriers for handling claims.

A major difference between the various NHI proposals is the assignment of responsibility for administering the insurance provided employees. At one extreme is the Packwood-Mills bill, supported by the Administration, which provides that employee insurance be carried by private insurers, though supervised by states under federal regulations. At the other extreme is the Kennedy-Griffiths bill, which specifies that all national health insurance programs be administered by the federal government and thus would substantially supplant private insurance. As a concession to the private insurers, which naturally are not eager to preside over their own demise, Kennedy's later bill, introduced with Mills, provides that, although the federal government would administer NHI, private carriers could be used to process claims.

Those who favor federal administration of NHI point out that Medicare has been administered efficiently and inexpensively by the Social Security Administration. Those who argue for administration by private insurers point to their long experience in handling claims. Federal administration would give the government greater control over the health care system -- an advantage in the eyes of those who would reform the system and a disadvantage in the eyes of those would would preserve the system as much as possible in its present form.

Control of Costs: Most proposals provide for prospective reimbursement with the rates set by the states under federal procedures and criteria. However, the Kennedy-Griffiths bill puts cost controls firmly in the hands of the federal government. Regional and local offices of HEW would draw up total area budgets for all services. Hospitals and other facilities would be paid on the basis of negotiated budgets designed to pay reasonable costs. Physicians and dentists could be paid on a fee-for-service basis or by capitation (that is, a specified sum per patient on the doctor's rolls). The Kennedy-Griffiths bill seeks stringent federal controls over costs because of doubts about the effectiveness of cost controls administered by private insurers and state regulators. The Kennedy-Mills bill takes a more moderate stance by providing that payments to institutions be on the basis of a variety of prospective payment systems developed by the Social Security Administration, but here, too, control would lie in the hands of the federal government, not private carriers or state regulators. Cost controls applied by private insurers and state regulators have not enjoyed great success in curbing costs in the past, but the argument against federal regulation is that it would be too inflexible to allow for legitimate differences between providers in different areas and of different types. Federal regulation is likely to be a better weapon for rectifying the deficiencies in our health care system, but it may be harmful to the virtues the system has.

Impact on national health expenditures: With any National Health Insurance program, national health expenditures would inevitably rise, if only because more health services were being delivered. The increase would range from $3.4 billion under the Long-Ribicoff bill to $13 billion under the Kennedy-Griffiths bill. The differences in the cost of the various proposals are due largely to differences in the coverage provided -- the more comprehensive the coverage, the greater the cost. The question then is how much health care can the country afford to give its citizens without sacrificing other social objectives.

A major difference between the various proposals is the proportion of national health expenditures that would be financed publicly. With the Long-Ribicoff bill and also with the Packwood-Mills bill, supported by the Administration, 44% of national health expenditures would be publicly financed. However, with the Kennedy-Griffiths bill, 89% of the costs would be publicly financed. Of course, with all the proposals, the portion of national health expenditures financed by general tax revenues would increase only moderately, for most public financing would be done by payroll taxes. The use of payroll taxes rather than premiums to finance NHI would not increase the cost of the insurance program, but payroll taxes would make NHI appear more expensive because all the cost would show up in the federal budget.

Any National Health Insurance plan is certain to have a significant impact on our health care system, and some of the effects may well be unforseen. Whoever would have predicted, for example, that Medicare would aggravate the geographic maldistribution of doctors in this country? NHI will surely increase the quantity and perhaps also the quality of health services received by our citizens. There is no guarantee that this will improve the basic health status of the American people, but it should promote social justice by fostering more equitable delivery of health care to different income groups.

HEALTH MAINTENANCE ORGANIZATIONS (HMO's)

Health Maintenance Organizations, which provide comprehensive health care for a fixed monthly fee, are being encouraged as a tool for remedying some of the deficiencies in our health care system and as an efficient and economical means of meeting the increased demand for care likely to be triggered by National Health Insurance. Because an HMO provides comprehensive care, it can more readily integrate the various levels of care, and it promotes an emphasis on preventive and primary care. Because this care is paid for with a fixed monthly fee rather than on a fee-for-service basis, an HMO encourages providers to deliver care as inexpensively as possible.

BASIC CONCEPT

Health Maintenance Organizations (HMO's) have been advocated as a means of curbing our spiraling health care costs and reducing the inefficiencies in our system of delivering health care. The government has been actively promoting the concept since the early 1970's, and Congress passed an HMO Act in 1973. HMO's take many forms, but all have certain common characteristics: They are organized systems that provide a comprehensive range of health maintenance and treatment services to a voluntarily enrolled population in exchange for a fixed and prepaid periodic payment.[1]

In some HMO's (called "closed panel" HMO's by the federal government), the medical professionals work entirely on a salaried basis, delivering their services in hospitals and outpatient facilities owned by the HMO itself. In others (labeled "individual practice" HMO's), doctors treat clients in their private offices, consulting with other physicians within the HMO group or sending the patient to facilities under contract to handle the enrolled members of the HMO. In such an HMO, physicians may be paid on a fee-for-service basis even though patients pay a fixed monthly premium to the HMO or its insurance carrier. Often the physicians and the hospitals involved in this individual-practice HMO continue to handle some clients outside the

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[1] Frank Seubold, "HMO's - The View from the Program," Public Health Reports, March-April 1975, p. 99.

HMO in the traditional fee-for-service manner. Between the groups which fully own and operate the facilities required for total care and those groups which own no collective equipment but organize and utilize existing facilities outside of the group, there is a range of HMO's, each system varying in such things as capital, the extent to which facilities are owned, the basis for payment to physicians, types of care provided, demography, disease prevalence, use of outside insurance carriers, and availability of management skills. Traditionally HMO's have encompassed a prepaid group medical practice, but in recent years other forms of HMO's have developed. One of these new forms is the medical foundation, which is discussed later in this chapter.

Although the concept of a prepaid group medical practice has existed for over half a century, HMO's prior to 1970 were not numerous enough to be seriously considered as an alternative means of bringing health services to a substantial proportion of the population. In February 1971 there were only about 33 HMO's in the U.S.[1] Firm opposition from insurance groups, local medical societies, and the American Medical Association worked against the development of this method of health care delivery. Physicians in prepaid group practices were often excluded from state or county medical societies and thus were unable to gain access to hospitals. A District Court ruling in 1941 forbade the AMA and the District of Columbia Medical Society to continue this practice,[2] but individual medical societies continue to do so until 1959. In some states, prepaid group plans were required to have medical society approval or the participation of a certain percentage of the eligible physicians in the county. Legal proceedings have weakened some of the barriers erected against HMO's by the medical fraternity, but not until the HMO Act of 1973 were state limitations regarding prepaid group practices made inoperative, at least for those HMO's qualified to receive federal assistance within the Act. The 1973 Act's requirements for qualification as an HMO posed new problems, as will be discussed later in more detail, but nevertheless the number of HMO's has increased dramatically in the past five years. From 33 in February 1971, the number grew to 125 in 1973; in the following year over 50 new HMO's began delivering care, bringing the total to 183 by the end of 1974.[1]

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[1] Steve Aaronson, "Can the HMO's Make It?" *Medical Dimensions*, April 1975, p. 2. The number is an approximate one due to the difficulty of defining what is or is not an HMO.

[2] American Medical Association v. United States, 130 F.2d 233 (D.C.Cir.), affirmed 317 U.S. 519, 528-29 (1943). See also Group Health Cooperative v. King County Medical Society, 39 Wash. 2d 586, 604, 237 P.2d 737, 747 (1951).

There are many advantages to an HMO, particularly when it encompasses a prepaid group practice.

- An HMO promotes many economies. Because of the fixed prepayment, there is an incentive for health care providers to minimize expenses and avoid unnecessary services. In a fee-for-service system, each service is a means of increasing the income of providers, and the sick person is something of an "asset." But in an HMO there is a strong incentive to keep people well and cut back on overuse of expensive facilities.
  - A definitive study by the Civil Service Commission found that federal employees with Blue Cross/Blue Shield averaged 924 hospital days per 1,000 persons, while federal employees in an HMO averaged only 422 days. Moreover, federal employees with the traditional Blue Cross/Blue Shield plan underwent twice as much surgery.[2]
  - A 1973 study by Roemer and others found that even among demographic groups with high hospitalization (lower class groups "chronically ill" families, etc.), hospital utilization was

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[1] Interstudy, Health Services Information, October 21, 1974, pp. 1-2.

[2] Michael Rosenbaum, "HMO: The 'M' Stands for Money," Medical Dimensions, April 1975, p. 20.

markedly lower among members of those groups in an HMO-type plan than among comparable persons in other health plans.[1]

  - When a study was made comparing the health care provided Medicaid recipients in an HMO and those using the fee-for-service system, analysis showed the HMO enrollees used 30% fewer hospital visits, 15% fewer physician visits, and 18% fewer prescription drugs. As a consequence, the cost saving per Medicaid patient in the HMO versus those in the fee-for-service system averaged 21% during fiscal 1972, 1973, and 1974.[2]

- Group practices make other economies possible in the realm of equipment utilization, routine business administration, medical record upkeep, manpower utilization, continuing education of professionals, and distribution of specialists' skills. If centralized facilities are used by the HMO, a wide variety of skills and facilities are made available at a single location, reducing misallocation of professional time and cutting down duplication of staff and equipment. The National Advisory Commission on Health Manpower found that, compared to California averages, Kaiser (a prepaid group practice) had significantly fewer hospital beds per member and physicians per member, and Kaiser expenses per member (adjusted for the underrepresentation of indigents and the elderly, and for the medical care obtained by members from non-Kaiser sources) are 20% to 30% less than it would cost if the same care were obtained elsewhere.[3] While nationally there were 1.22 practicing physicians per 1,000 population (in 1970), the ratio of practicing physicians per 1,000 enrollees ranges from 0.6 to 1.0 in HMO's.[1]

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[1] Milton Roemer, R.W. Hetherington, C.E. Hopkins, et al., Health Insurance Effects: Services, Expenditures, and Attitudes under Three Types of Plans (Ann Arbor, Mich.: University of Michigan School of Public Health, 1973); quoted in Milton Roemer and William Shonick, "HMO Performance: The Recent Evidence," Health and Society (Milbank Memorial Fund Quarterly), Summer 1973, p. 287.

[2] U.S. Department of Health, Education, and Welfare Press Release, March 9, 1975, quoted in Medical Care Review, April 1975, p. 376.

[3] Jerry Phelan, Robert Erickson, and Scott Fleming, "Group Practice Payment: An Approach to Delivering Organized Health Services," Law and Contemporary Problems, Autumn 1970, p. 814.

- HMO's encourage patients to seek care in the early stages of an illness. Since ordinary health insurance often does not cover routine medical care, the patient may not seek care until his malady becomes sufficiently serious to require hospitalization, which is covered by insurance. But the HMO member, whose monthly fee covers routine care as well as hospital and specialists' care has no financial barrier to early preventive care or treatment. (See Exhibit III-21, Part A.) While hospitalization rates are generally far lower in an HMO than with other health care plans, doctor visits are roughly the same. Thus, in an HMO there is, relatively speaking, far greater emphasis on ambulatory care than with traditional providers. (See Exhibit III-21, Part B.) However, there is some evidence that the low hospital utilization rates in an HMO are due, not to better preventive care, but to the fact that more treatment is given on an outpatient basis and hospital stays are kept as short as possible. HMO's may, in fact, not lead to a better health status for their enrollees but just to more efficient use of health services.[2] Prepaid group practices also put more emphasis on primary rather than specialized care: 60-70% of HMO doctors practice in primary care fields[3] -- versus 47% for the U.S. health care system as a whole.[4] As Dr. William Roy, the principal author of the 1973 HMO Act, has pointed out: "The primary reason for HMO's ability to cut costs without decreasing quality is that an HMO treats patients in proper facilities with proper personnel."[5]

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[1] Paul Ellwood, Jr., "The Health Maintenance Organization Approach," Realigning the Health Care Delivery System, A Report of the 1971 National Forum on Hospital and Health Affairs, p. 28.

[2] Roemer and Shonick, op. cit., p. 288.

[3] Ellwood, op. cit., p. 28.

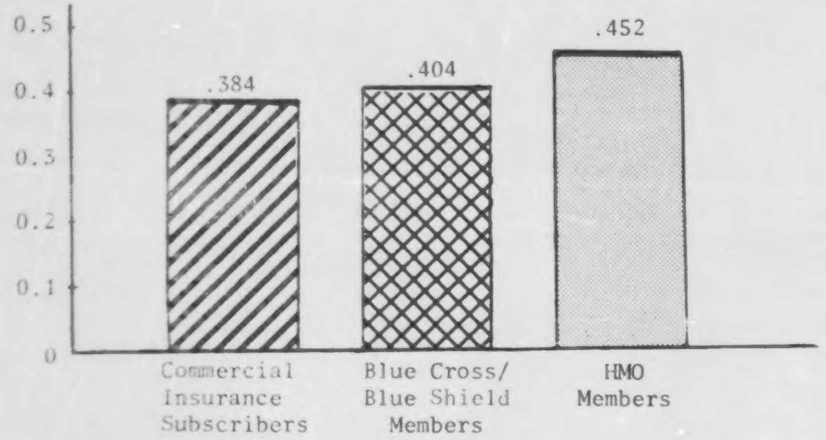
[4] See Chapter IV, "The Undersupply of Primary Care Doctors."

[5] "The Two Barriers to HMO Success: The Doctors and the Patients," Modern Health Care, May 1974, p. 51.

Exhibit III-21

HMO EMPHASIS ON AMBULATORY AND PREVENTIVE CARE

A. Amount of Preventive Care Received By Subscribers to Three Types of Health Care Plans



The University of California School of Public Health compiled a "preventive service index" accounting for such services as Pap smears, chest X-rays, blood tests, routine rectal examinations, and immunizations. The results were placed on a range of zero to one, and are illustrated above.

Source: Cited in Steven Aaronson, "Can the HMOs Make It?," Medical Dimensions, April 1975, p. 3.

B. Doctor Visits Versus Hospital Days with Three Types of Health Care Plans

Health Care Plan	Doctor Visits Per 1,000 Per Year (a)	Hospital Days Per 1,000 Per Year (b)	Ratio (a):(b)
Commercial Insurance	3,104	864	3.6
Blue Cross/Blue Shield	3,984	1,109	3.6
Prepaid Group Practice (HMO)	3,324	526	6.3

Source: Milton Roemer and William Shonick, "HMO Performance: The Recent Evidence," Health and Society (Milbank Memorial Fund Quarterly), Summer 1973, p. 291.

- *The quality of medical care is subject to close internal scrutiny in a group practice and, to a lesser extent, in other HMO's.* In group practices, the doctors are chosen by other physicians in the group and are subject to continuing evaluation of their performance. Another advantage of the HMO approach is that providing care to an enrolled population facilitates the evaluation of performance on the basis of outcomes rather than inputs.[1] HMO's, for example, can evaluate certain drugs, and, if a medical audit reveals no benefits from the drug, its use is curtailed.[2] Additionally, because the consumer may opt to leave if the HMO does not measure up to his standards, another quality control is introduced. Such competition not only can insure the quality of services provided by the HMO, but also can force private physicians to upgrade quality in order to compete with the prepaid system.[3]

- *Because a prepaid group practice provides comprehensive care, the different levels of care are more likely to be integrated.* The physician in a prepaid group has ready access to specialists to whom he can refer his patients, and he has no fear of referring patients elsewhere lest he lose a fee.[4] The doctor in a prepaid group thus has no incentive or obligation to practice outside his specialty.[5] And specialists can readily refer patients back to primary care physicians to ensure that basic medical needs are not overlooked.

- *By offering a system of comprehensive care, the HMO eases the problem of consumers bewildered by the array of providers in the U.S. health care system.* The HMO offers its members easy access

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[1] Ellwood, *op. cit.*, p. 21.

[2] Rosenbaum, *op. cit.*, p. 20.

[3] The Tax Foundation, Inc., *Problems and Issues in National Health Insurance* (New York, N.Y.: 1974), p. 23.

[4] Kaiser Foundation Medical Care Program, *Annual Report, 1973*.

[5] Phelan, et al., *op. cit.*, p. 798.

to health care and steers them to the different levels of care needed. This is particularly important with the least educated segments of the population and the non-English-speaking groups.[1] Some statistics appear to indicate that more highly educated persons make better use of ambulatory services in the relatively complex framework of a large prepaid group plan, while this differential in the use of services by people of various educational levels is less apparent with conventional conditions of medical practice.[2] However, a 1970 study by Grunlick indicates that gross differences in health care utilization patterns attributed to income differentials shrink significantly when the population is enrolled in a comprehensive, prepaid plan.[3]

- In a few cases, an HMO has been organized around a hospital outpatient clinic. Such a step is designed to increase the efficiency with which the clinic operates, to improve the quality of care delivered, and to increase revenues by attracting a wider range of patients.[4] Such an HMO, thus, seeks to remedy a major weak spot in our hospitals.

The HMO concept -- at least in the form of a prepaid group practice -- offers a health care system where wellness rather than sickness brings the providers a greater return. It also can minimize the overhead and administrative costs of the practicing physician and free him to devote more time to medicine instead of routine bookkeeping. It enables the doctor to have access to equipment, consultation, and auxiliary services that would otherwise have posed a threat to his fees or been prohibitively expensive. And it encourages the provision of total care to the subscriber: Records are complete and accessible from a central location, and, regardless of the nature of treatment, the physician is aware of special problems or overall conditions which can influence the outcome of his care.

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[1] Paul Elwood, Jr., "HMO's -- Concept and Strategy," Hospitals, March 16, 1971, p. 55.

[2] Roemer and Shonick, op. cit., p. 290.

[3] Stuart Schweitzer, "Incentives and the Consumption of Preventive Health Care Services," Consumer Incentives for Health Care, Selma Mushkin, ed. (New York, N.Y.: Milbank Memorial Fund, 1974), p. 42.

[4] See, for example, Gerald Katz and Fred Hollander, "From Clinic to Group Practice," Hospitals, March 1, 1975, pp. 67-71.

Despite the enthusiasm for HMO's generated in the past few years, there are numerous problems inherent in the concept of HMO's as well as in their track record. Theoretically, the prepaid fixed-fee nature of an HMO can eliminate the desire to overtreat or overhospitalize a patient. But the logical converse may also hold true: The need to avoid a deficit in the HMO may result in a failure to hospitalize or treat when necessary or in economizing on the quality of care delivered.[1]

Members of existing prepaid group practices have generally been pleased with the financial advantages of prepayment and the technical standards of group health care but are less likely to be satisfied with the doctor-patient relationship itself. And there are often complaints about waiting time for appointments.[2] However, a UCLA study found that 20% of families enrolled in Blue Cross/Blue Shield and 17% of families with commercial health insurance were dissatisfied with their medical care, while the dissatisfaction rate was only 8% among HMO enrollees.[3]

Another problem that has been encountered with prepaid group practices is recruiting doctors. "Fee-for-service, solo practice provides the individual physician with good income, independence, professional acceptance, and standing in the community. There may be a crisis in American health care, but there is no crisis for the individual physician. The system works well for him."[1] Since the late 1960's, group practice has been growing more attractive to doctors,[2] particularly young ones, but the profession has traditionally been filled with individualistic entrepreneurs, not eager to sacrifice any of their autonomy to a group.

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[1] John Kernodle, "HMO's: Can They Maintain Health?", Wall Street Journal, August 8, 1973, p. 16.

[2] Roemer and Shonick, *op. cit.*, pp. 304-305.

[3] Aaronson, *op. cit.*, p. 3.

A well operated HMO requires not only dedicated doctors but also effective management, strong leadership, and adequate financing. As in any business, professional staff must be recruited, facilities must be erected or contracted for, a method of enrollment must be developed, the plan must be marketed, capital must be generated, plans and policies must be made. There is no room for unsound judgements. There is fear in the medical profession and elsewhere that federal funds will be pumped into HMO's because the idea is a good one -- regardless of the individual group's ability to manage its own operations. Between January and March 1975, nine new HMO's came into being but eleven went out of business because of financial problems or loss of Medicaid contracts.[3]

Questionable management practices and the failure to deal with serious structural flaws have placed the second largest and one of the oldest HMO's on the verge of bankruptcy.[4] Health Insurance Plan of Greater New York (HIP) has notoriously long waiting periods for appointments, treatment that is admittedly impersonal, and overall service of dubious quality. HIP never owned its own hospitals and does not have a full-time medical staff: It contracted with part-time doctors who threatened to leave the group if HIP made demands for higher quality. For several years, HIP used Medicaid funds to buffer what would have been tremendous losses.

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[1] Phelan et al., op. cit., p. 803.

[2] Ernest Saward and Merwyn Greenlick, "Health Policy and the HMO," Politics and Law in Health Care Policy, John McKinlay, ed. (New York, N.Y.: Milbank Memorial Fund, 1973), p. 389.

[3] Howard Lewis, "The Selling of HMO's: 1975," Modern Health Care, May 1975, p. 33.

[4] Health Policy Advisory Center, "Crippled HIP," Health/PAC Bulletin, October 1972, p. 15.

Overall, however, the record of HMO's established before 1970 was an exceptionally good one and was an important factor in the generation of enthusiasm and support for their large-scale growth. Ross-Loos Medical Group of Los Angeles (founded in 1929), Group Health Association, Inc. of Washington, D.C. (1937), Group Health Cooperative of Puget Sound (1947), and Kaiser Foundation Health Plan (1942) are among the highly successful HMO's which are noted for their efficient operations, their low hospital utilization, their patient satisfaction, and their consistently high quality of care.[1] (See Exhibits III-22, 23, and 24.) These are certainly outstanding examples of what an HMO can be. But they are not sufficient evidence of what all HMO's will be.

Successful HMO's require not only good management, sufficient capital, and dedicated doctors; they also require sizeable membership. These elements are not automatically present. Connecticut General Life Insurance Company's Healthcare Plan had no difficulty in terms of capital; the new facility in Brooklyn had a committed group of physicians; and the idea had gained wide acceptance and support by local employers. Connecticut General provided competent management: They were operating two successful HMO's elsewhere. But in March 1975, after only one year of operation, Healthcare of Brooklyn closed down, having incurred losses of $1.5 million, for, instead of the anticipated 12,000 members, only 400 joined.[2]

Enrollment problems have affected many other newly founded HMO's, in part because of the unintended barriers created by the 1973 HMO Act, in part because of inadequate marketing by the HMO's, and in part because of general consumer ignorance or unwillingness to change from their present habits of obtaining care. Consumers sometimes feel a certain loyalty to their physicians. The long waiting time for appointments at HMO's discourages others. The high cost of HMO premiums alarms consumers who overlook the fact that some services are covered by the HMO but would be an additional cost to the consumer under other health insurance plans. (See Exhibit III-24 for differences in the premiums and out-of-pocket expenses between HMO's and other health insurance.)

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[1] For a detailed description of one successful HMO, see this chapter's appendix on the Kaiser plan.

[2] Joann Lublin, "Unhealthy Start," Wall Street Journal, February 11, 1975.

Exhibit III-22

HOSPITAL USE IN HMO'S VERSUS THE TRADITIONAL SYSTEM

Hospital Use	HMO	Other	HMO as % Of Other
Number of Hospital Days Per 1000 Persons Per Year	744	955	78%
Number of Hospital Admissions Per 1000 Persons Per Year	70	88	79%
Hospitalized Surgical Cases Per 1000 Persons per Year	49	69	71%
Tonsillectomies Per 1000 Persons Per Year	47	94	50%

Source: Paul Densen, et al., "Prepaid Medical Care and Hospital Utilization in a Dual Choice Situation," American Journal of Public Health, November 1960, cited in Paul Ellwood, "The Health Maintenance Organization Approac Realigning the Health Care Delivery System, 1971.

Note: Data standardized for age, sex, income, residence, and , excepting tonsillectomy rates, for out-of-plan services.

Exhibit III-23

EFFECT OF HMO PERFORMANCE ON HEALTH STATUS

(Prematurity and Mortality)

Health Status Indicator	HMO	Traditional Mode	HMO as % of Traditional Mode
Premature Births Per 100 Live Births			
White	5.5	6.0	92%
Non-white	8.8	10.8	81
Infant Mortality Per 1,000 Births			
White	22.7	27.3	83
Non-white	33.7	43.8	77
Annual Mortality of Elderly Population (18 Months or More After Plan Membership)	7.8%	8.8%	89

Source: Sam Shapiro, Harold Jacobjiner, et al., "Further Observations on Prematurity and Prenatal Mortality in a General Population of a Prepaid Group Practice Medical Care Plan," American Journal of Public Health, September 1960, pp. 1304-1317; and Sam Shapiro, Josephine Williams et al., "Patterns of Medical Use by the Indigent Aged Under Two Systems of Medical Care," American Journal of Public Health, May 1967.

Note: Data standardized for age, sex, income, residence and, where appropriate, age of mother.

Exnibit III-24

MEDICAL CARE EXPENDITURES UNDER HMO'S VERSUS OTHER HEALTH INSURANCE PLANS

Type of Plan	Average Premium	Out-of-Pocket Expenditures	Total Cost
Commercial Insurance	$208	$156	$364
Blue Cross/ Blue Shield	257	190	447
Prepaid Group Practice	271	52	323

Source: M. I. Roemer, R. W. Hetherington, C. E. Hopkins, et al., Health Insurance Effects: Services Under Three Types of Plans, Bureau of Public Health Economics, Research Series No. 16 (Ann Arbor, Mich.: University of Michigan School of Public Health, 1972).

Clearly HMO's are not a fool-proof remedy for the deficiencies in our health care system. But with the necessary management skills, HMO's may, by their organized and cohesive nature, deal more effectively with some of those deficiencies than the traditional providers. If HMO's offer serious competition to traditional providers, each can learn from the strengths of the other.

HMO LAW OF 1973 AND ITS IMPACT

The Health Maintenance Organization Act,[1] enacted December 29, 1973, committed the federal government to support HMO's for a trial period. The law authorized grants and loans to public or non-profit organizations and loan guarantees to private profit-making organizations which enroll medically underserved populations. Awards of up to $50,000 may be made for studies to determine the feasibility of developing or expanding the operation of an HMO. Once feasibility is established, the organization may receive up to $125,000 to perform detailed planning. When the plans are in place, organizations may receive up to $1 million for the initial development of the HMO, including assembling the professional staff, completing the organizational arrangements, and marketing for members.[2] Although this government funding seems generous, in fact it is estimated that an HMO initially requires an investment of $2-5 million.[3]

Once under development, the HMO can apply for certification under the Act and thus qualify for federal funds to cover its operating deficits during its early years of operation. The maximum amount available to an

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[1] Public Law 93-222.

[2] Marjorie Mueller, "HMO Act of 1973," Social Security Administration, Office of Research and Statistics, Note No. 5, March 12, 1974, quoted in Medical Care Review, April 1974, p. 407; and Frank Seubold, "HMO's -- The View from the Program," Public Health Reports, March-April 1975, p. 102.

[3] Rosenbaum, op. cit., p. 18.

HMO to cover its losses is $2.5 million for a three-year period.[1] The requirements for certification are stringent, and only those HMO's which meet these requirements can benefit from the provisions of the Act.

For certification an HMO must be able to:

- Show fiscal soundness and make provisions against insolvency;
- Take full financial risk with only limited reinsurance;
- Provide hearings and grievance procedures;
- Bear proof of its quality assurance arrangements;
- Offer continuing education for its medical professionals;
- Report to the Secretary of HEW and to the public and its members regarding the costs and utilization of its services.

Another requirement for certification is that the HMO open its enrollment at least once a year to anyone, regardless of illnesses.[2] Thus, HMO's may attract members who are unable to get health insurance elsewhere because of their medical problems. HMO's are also required to charge the same fee to all members regardless of their medical history, while insurance companies can and do charge higher premiums to the elderly and those who are already ill. HMO's must base their fees on "community rating," that is, the average cost of meeting the medical needs of the entire population it serves. "Community rating" requires higher fees than "experience rating," which is based on the average cost of meeting the medical needs of a selected group, for the selected group is generally healthier than the population as a whole. Group insurance policies, whether provided by commercial companies or Blue Cross or the traditional HMO, customarily use "experience rating," because the groups they serve -- drawn from the better paid wage earners in the population -- tend to require less medical care than the unemployed, those employed in low wage industries, the aged, and others with high medical risks.

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[1] Seubold, op. cit., p. 102.

[2] Aaronson, op. cit., p. 4.

HMO membership rolls have traditionally been dominated by middle class wage earners, and encompassing other groups in HMO's will not only raise the cost of providing care to members but will probably also change the character of the medical care the HMO must deliver. Exhibit III-25 shows the difference in the utilization patterns of regular members of the Kaiser Plan and medically indigent patients treated by Kaiser under a contract with the Office of Economic Opportunity.

Expanding HMO membership to include higher risk groups and charging the same monthly fee to all members is likely to push up HMO premium rates and make HMO's less able to compete with other health insurers. Requiring HMO's to have open enrollment, when other group insurance plans do not, may cause the HMO to attract the sickest members of the population and thus push up HMO premiums even farther. In short, open enrollment in HMO's -- and the mandatory benefits the law requires HMO's to offer -- may cause an uneven spread of high and low risk members between HMO's and other health care providers and thus may put HMO's at a competitive disadvantage unless other health insurance carriers are subject to the same requirements.[1]

The coverage HMO's must offer their members is extensive:

- Physicians' services, including consultation and referral services;
- Inpatient and outpatient hospital services;
- Medically necessary emergency services;
- Short term outpatient evaluative and crisis-intervention mental health services (up to 20 visits);
- Treatment and referral for alcohol and drug addiction;
- Diagnostic laboratory services;
- Diagnostic and therapeutic radiology services;
- Home health services;
- Preventive health services including voluntary family planning and infertility services, preventive dental care for children, and children's eye examinations.[2]

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[1] Aaronson, *op. cit.*, p. 5.

[2] Mueller, *op. cit.*, p. 404.

Exhibit III-25

KAISER FOUNDATION HEALTH PLAN, PORTLAND REGION: UTILIZATION BY OEO MEMBERSHIP AND REMAINDER OF PORTLAND KAISER MEMBERSHIP (UNDER 65), 1970

Utilization Indicator	OEO[a] Membership	Remainder of Membership (under 65)	OEO versus Remainder
Doctor office visits per 1000 members	3,645	3,270	+11.5%
Hospital days per 1000 members	428	375	+14.1%
Average length of stay in hospital	4.5	4.8	-6.3%
X-ray procedures per 1000 members	743	794	-6.4%
Laboratory procedures per 1000 members	3,444	3,673	-10.0%
Average population during year	6,802	123,613	N.A.

Source: Anne R. Somers, ed., The Kaiser-Permanente Medical Care Program, Proceedings of a Symposium Sponsored by the Kaiser-Permanente Medical Care Program, the Commonwealth Fund, and the Association of American Medical Colleges, Oakland, California, March 1971 (New York, N. Y.: The Commonwealth Fund, 1971), p. 143.

[a] OEO = Office of Economic Opportunity, which contracted with Kaiser to care for a medically indigent population.

If health manpower is available and members have contracted for such a service, then the HMO must also offer these benefits:

- Care in intermediate and long-term care facilities;
- Vision care;
- Dental services;
- Mental health services;
- Long-term physical therapy and rehabilitative services;
- Drugs prescribed for the provision of basic or supplemental services.[1]

Any HMO which offered the extensive benefits required for certification should find itself priced out of the market, for the benefits the law requires of HMO's are much greater than those provided by most health insurance. Premiums for an HMO meeting the requirements would be prohibitively expensive for many consumers even if their employers paid a portion of them. Employers will normally only contribute as much to HMO premiums as they do to the premiums for other health insurance offered employees; thus, the higher cost of HMO premiums must come out of the consumer's pocket. The Kaiser Plan estimates that, if it increased its benefits to qualify as an HMO, premiums would have to go up as much as 10%, and 10-20% of Kaiser subscribers would have to drop out of the plan for lack of money.[2]

By far the most controversial of the provisions of the HMO Act is the "dual option" section, which in essence requires that every employer of 25 persons or more who offers a health benefits plan must offer employees the option of joining an HMO, if a qualified one exists in the area.[3]

The intent of the dual option is to encourage the development of HMO's, but, in fact, to date it has proved a stumbling block. The U.S. Labor Department contends that a union as a whole must have the right to reject HMO membership for its members; otherwise a wedge is created which can weaken all collective bargaining agreements, and an employer might be able to inflict an inferior HMO on union members. HEW, on the other hand, interprets the law to mean that companies must offer HMO membership to individual employees even if union leadership vetoes the HMO.[1] It has been this controversy which has delayed HEW's issuing of any regulations, and the delay has been a serious setback for HMO's.

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[1] *Ibid.*

[2] Lewis, *op. cit.*, p. 34.

[3] Seubold, *op. cit.*, p. 102.

Without a resolution of the dual option issue, no employer is likely to support an HMO if it might involve serious labor disputes later. Even the large, established prepaid plans stand to lose ground during this dispute, for, although they are not in need of the federal aid which requires their submission to the government's restrictions, they have large numbers of members who have joined through collective bargaining agreements. They have little desire to see these members dissipated by the dual option controversy.

Medicare indirectly works against the HMO concept since it reimburses physicians and institutions on a fee-for-service basis, with no provision for prepaid capitation fees. So, while an HMO must accept low-income, elderly clients, in line with federal priorities, it must also translate their costs from the comprehensive prepaid fee to Medicare's reimbursement-for-specific-service-rendered basis. This is extremely costly in time and money and weakens the basic advantages of a prepaid plan.[2]

Medicaid, however, has been used in some states to pay HMO premiums for the poor. The fixed premium for comprehensive care seems not to pose the problem with Medicaid that it does with Medicare. However, the use of Medicaid for HMO premiums has been subject to abuses. For example, Medicaid has paid HIP in New York higher premiums than those paid by regular subscribers on the theory that Medicaid subscribers would require more services. However, in fact Medicaid subscribers have used only one-third as many services, principally because many Medicaid enrollees were not aware of what HIP was or of the services it offered.[1]

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[1] Jonathan Spivak, "HEW Health Care Plan Stirs Conflict with Unions over Bargaining Rights," Wall Street Journal, January 29, 1975, quoted in Medical Care Review, February 1975, pp. 126-127.

[2] Nancy Hicks, "Health Insurance Groups Call Services Mandated by New Law Too Expensive," The New York Times, February 14, 1974; see also Jerry Phelan et al., "Group Practice Prepayment: An Approach to Delivering Organized Health Services," Law and Contemporary Problems, Autumn 1970, p. 811.

The HMO Act not only seeks generally to encourage the development of these health delivery systems but particularly seeks to foster their development in rural areas, where health services are often inadequate. Of the funds appropriated for HMO's, 20% are to be disbursed for projects in rural areas, and in all disbursements priority is to be given to HMO's that will provide care to medically underserved populations.[2] HMO's, like other health care providers, have tended to cluster in a few heavily populated urban areas. Thus, of the 125 HMO's in operation in December 1973, 87, or 70% of the total, were concentrated in 18 cities.[3] Los Angeles alone had a quarter of the total.[4] However, by the end of 1974 about 27 rural HMO's had come into existence,[5] and some seem to have managed to adjust their organization to fit local needs and sparse populations. With Blue Cross and Medicare financing, some may be able to operate successfully without the 30,000 population base generally considered necessary for an HMO.[6] But it is too early to tell what the long-term effect of the HMO law will be on rural medicine, for many of the projects now underway are still in the earliest stages of planning and development.

The HMO law of 1973 has accomplished what several decades of labor by its advocates had only marginally achieved: It supersedes any state law that poses a barrier to HMO's by requiring the HMO to have such things as medical society approval or participation by all or a certain number of physicians in the area. The Act also prohibits laws that prevent HMO's from soliciting members through advertising.[1] However, these provisions of the Act apply only to HMO's which meet federal standards.

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[1] Health Policy Advisory Center, "Crippled HIP," Health/PAC Bulletin, October 1972; pp. 16-17.

[2] Seubold, *op. cit.*, p. 102.

[3] Interstudy, *op. cit.*, p. 1.

[4] *Ibid.*

[5] Interstudy figures reported in McGraw-Hill's Washington Report on Medicine and Health, February 24, 1975.

[6] Massachusetts Department of Public Health, "Need, Not Numbers: The Rural HMO," The New England Journal of Medicine, September 12, 1974.

In summary, the Health Maintenance Organization Act of 1973 has to date proved a mixed blessing. The law does override restrictive state laws and requires employers of 25 persons or more to give employees the option of joining an HMO if one is available. However, requiring this option has triggered a controversy that thus far has hampered rather than helped the development of HMO's. Furthermore, to qualify for federal aid, the organization must comply with federal regulations, which require an HMO to provide benefits that are prohibitively expensive and to open its membership to groups with above average medical costs. In short, the federal government is prescribing an ideal HMO, not an economically feasible one. Even the long successful Kaiser Plan does not meet all the requirements. In fact, by June 1975 only five HMO's had been certified, and none of these were large, well established organizations such as Kaiser, HIP, or Ross-Loos.[2] One of the five HMO's certified by the government is not a prepaid group practice but a medical foundation created by doctors to preserve private practice and fee-for-service payment for physicians within a system of fixed premiums for subscribers. Foundations are described in the next session.

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[1] Seubold, op. cit., pp. 102-103.

[2] Social Security Administration, Office of Research and Statistics, telephone interview, June 30, 1975.

FOUNDATIONS

Medical foundations have been created by doctors to preserve fee-for-service practice in private offices while meeting the demand for cost controls. Some foundations are even seeking to qualify as HMO's.

Fears about the encroachment of Kaiser-style prepayment groups, the possibility of getting Medicaid funds, and the Health Maintenance Organization Act of 1973 have provided the impetus for the medical foundation movement in this country.

A medical foundation is an organization of physicians, sponsored by a state or local medical society, that contracts with industry, unions, or government to provide health care to specified groups of patients or that contracts with a third party insurer to review health care claims. When a foundation provides care, this care is provided not in a clinic or other central facility but in the private offices of foundation members, thus allowing patients free choice of physicians. All foundations provide a system of peer review, particularly in regard to utilization of doctors' services and often also in regard to fees charged.

Foundation doctors feel that, by working together to improve quality and control costs, they will be in a better position to negotiate with the government for retaining control in the hands of private physicians.[1] Many doctors, fearful of government-imposed controls over their profession, loss of autonomy, and inflexible national fee schedules or capitation payments, have come to regard foundations as a major hope for preserving the traditional mode of rendering medical care -- solo, fee-for-service practice.[2]

Foundations share many common characteristics and functions.

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[1] Howard Eisenberg, "There's a Medical Foundation in Your Future," Medical Economics, September 27, 1971, p. 92.

[2] Carolynn Steinwald, "Foundations for Medical Care," Blue Cross Reports, August 1971, p. 1.

- Membership restrictions: Any physician who belongs to or who is eligible to join the medical society sponsoring the foundation may become a member of the foundation. There is no limit on the number of physicians (or the specialties represented) in the foundation.

- Peer review: Foundation peer groups generally are responsible for reviewing the medical care provided, to ensure that there is no under- or over-utilization of physician services, hospital admissions, laboratory tests, or drugs and injections. The peer groups usually set ceilings on fees-for-service to eliminate fee abuse, but some foundations (such as the one in Missouri) do not concern themselves with fees. Foundation peer groups may investigate malpractice suits, and some have the authority to suspend licenses of member physicians. Some foundations have followed the lead of Sacramento, California, in instituting more complete programs to control hospital utilization. Sacramento's Certified Hospital Admission Program (CHAP) requires physicians to obtain advance certification for a specific length of stay for each patient admitted to the hospital, with requests for extensions appraised by nurse reviewers and peer physicians.[1] Some foundations themselves process all patient-service payment claims to determine which ones require peer review, while others leave claims-processing to the insurance companies and subject to foundation peer review only those claims which fall outside of established norms.[2] Claims-review costs in either case are paid out of patients' premiums.

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[1] Bauer and Densen, *op. cit.*, p. 72.

[2] Richard Egdahl, "Foundations for Medical Care," *New England Journal of Medicine*, March 8, 1973, pp. 491-498.

- Method of payment: Foundation doctors are paid on a fee-for-service basis either by the foundation directly or through a third party insurer. In most foundations, the charge must not exceed the ceiling set by the foundation's peer group. A few foundations (such as Missouri's) do not sponsor any health insurance plan: They just review claims made to Medicaid, Blue Cross or other insurers. Many foundations, however, sponsor some prepaid health insurance plan. In some cases, foundations work through third party insurers which meet the foundation's prescribed standards for coverage (generally a broad scope of benefits with emphasis on office care and other low cost options), although such foundations do not always enforce their prescriptions about minimum benefit packages. Other foundations sell health care contracts directly, writing off the risk portion with a functioning insurance company. A few foundations (e.g. San Joaquin, in California) provide comprehensive care on a prepaid basis, charging patients a flat annual fee, paying its member doctors on a fee-for-service basis, and absorbing any losses by reducing doctors' fees if contracts do not cover costs. Although many foundations are not-for-profit organizations, some are listed as for-profit by the Internal Revenue Service.[1]

- Doctor-hospital relationships: Hospitals generally have reacted favorably to the foundation movement. They recognize rising costs as a common enemy which foundations are attempting to control. However, there are undercurrents of resentment among hospitals about the increased leverage foundations provide doctors.[2]

In 1971 there were 37 foundations in existence; by 1975, that number was greater than 103. The rapid expansion of foundations gave birth to the

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[1] Steinwald, op. cit., p. 5.

[2] Eisenberg, op. cit., pp. 95-96.

American Association of Foundations for Medical Care. The AAFMC estimates that there are now 120,000 foundation physicians involved in the care of more than 7 million patients. The foundations in existence today are spread over 47 states with 17% in California, where foundations originated in response to the threat of prepaid plans such as Kaiser-Permanente.[1] While the majority of foundations cover one or several counties, there are state-wide operations as well.

Foundations can qualify as Health Maintenance Organizations if they operate on a prepaid basis and provide sufficiently comprehensive care. A number of foundations (labeled "comprehensive" foundations)[2] are already run essentially like HMO's with the exception of absorbing losses when contracts do not cover costs, and by July 1975 one foundation had won HMO certification by the government.[3] Other foundations (labeled "claims review" foundations) are little more than peer review mechanisms.

Even HMO-type foundations, however, do not appear to reduce hospital utilization as prepaid group practices do. A 1971 study by the California Public Employees Retirement System found that utilization rates for both hospital days and ambulatory doctor visits were higher under foundation-type health plans than for any other type of health plan.[4] A 1973 study of the experience of Medicaid beneficiaries enrolled in the Clackamas County Foundation in Oregon suggests a markedly higher hospital utilization rate than for a Medicaid population in a neighboring county using open market patterns without a foundation.[5]

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[1] American Association of Foundations for Medical Care, telephone interview, July 1, 1975.

[2] Egdahl, op. cit.

[3] Social Security Administration, Office of Research and Statistics, telephone interview, June 30, 1975.

[4] Milton Roemer and William Shonick, "HMO Performance: The Recent Evidence," Health and Society (Milbank Memorial Fund Quarterly), Summer 1973, pp. 286-288.

[5] Ibid.

Foundations do have one advantage as a utilization-control mechanism: They provide incentives to individual practicing physicians, who in many ways are the crucial decision makers in our health care system. And the incentives provide quick feedback to these decision makers: Questioned claims are ordinarily settled within two or three months,[1] unlike other cost incentive programs whose impact may not be felt for several years. (See section on "Reimbursement Systems" in this chapter.) And the incentive provided by foundations reaches doctors in a pressure-sensitive area, namely their wallets: If a doctor performs a service not approved by the foundation's peer review system, payment for that service will be withheld. And a doctor who habitually presents questionable claims is subject to close scrutiny by his colleagues, and some foundations have the authority to suspend the license of member physicians. Thus, the weapons at the disposal of foundations can be effective ones if the physicians elect to wield them vigorously. There is the danger, however, that medical foundations will gravitate toward a least common denominator level of norm-setting to avoid confrontation with their physicians.[2]

The peer review activities of foundations make them natural organizations to form the basis for PSRO's. (See Chapter II.) Foundations were, in fact, the testing ground for some of the concepts in the PSRO legislation.

In addition to reviewing utilization of medical services, foundations often set limits on the physician fees that will be reimbursed. These limits have less potential as cost-control mechanisms than utilization review, for fee limits are based on, say, the 80th percentile of the doctors' fees in the area. Doctors remain free to raise their fees at will, and, if a substantial number do so, the limits on reimbursable fees automatically go up.[3]

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[1] Bauer and Densen, op. cit., p. 84.

[2] Ibid., p. 88.

[3] Health Policy Advisory Center, "The Vanguard of the Rearguard," Health/PAC Bulletin, February 1973, p. 5.

A number of foundations were organized to provide care to Medicaid beneficiaries. The existence of a foundation appears to increase the percentage of a county's physicians that will treat Medicaid patients. A 1973 study by Roemer and Gartside also found that, in the performance of surgical operations on Medicaid enrollees, the work was more often done by properly qualified surgeons in the San Joaquin Foundation area than in the comparison county.[1] However, a study of obstetric care provided Medicaid patients in two California counties found that the medical care foundation model did not yield any significantly better perinatal mortality outcomes than the conventional private practice model of health care delivery.[2] Also, there have been reports of abuses in some of the foundations serving Medicaid patients. There have been complaints of fraud, of inadequate patient care, and of excessive administrative costs.[3]

Foundations do nothing to increase the number of physicians in an area, to ensure a better distribution of physicians among the various specialties, to set up night or emergency clinics, or to stimulate preventive medicine or public health campaigns. They thus do nothing to increase the medical services available in an area, to improve the integration of the various elements in the health care system, to make more efficient the use of scarce health resources, or to help consumers bewildered by the increasingly complex array of health care providers. Foundations -- just as their creators intended -- are a means of preserving the traditional fee-for-service health care system while instituting sufficient cost controls to satisfy public concern about escalating health care costs.

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[1] Roemer and Shonick, op. cit., p. 280.

[2] John Newport and Milton Roemer, "Comparative Perinatal Mortality under Medical Care Foundations and Other Delivery Models," Inquiry, March 1975, p. 16.

[3] Stuart Auerbach, "California Health Care Plans Faulted on Profits, Costs," Washington Post, March 14, 1975, quoted in Medical Care Review, April 1975, pp. 373-375.

There is a danger that foundations will be established solely to keep a competitive form of medical service -- prepaid group practices -- out of the market.[1] However, if foundations and prepaid group practices exist in competition with one another, each form of health care delivery could stimulate the other to curb possible weaknesses: Foundations could keep prepaid group practices concerned about quality of care and patient-doctor relationships, while the group practices could encourage foundations to keep their costs down and perhaps to integrate care better. Offering the consumer a choice in modes of health care delivery might be the best means of improving the U.S. health care system.

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[1] Clark Havighurst, "HMO's and the Market for Health Services," Law and Contemporary Problems, Autumn 1970, pp. 773-774.

APPENDIX TO CHAPTER III

THE KAISER PLAN[1]

The Kaiser Plan has long operated in the general fashion of an HMO. A study of Kaiser gives some insights into the strengths and weaknesses of this mode of delivering health services.

By far the largest and best known example of an HMO-type organization in this country is the Kaiser Plan, which has been cited as a model by nearly all groups advocating HMO's. The Kaiser Plan was started in the 1930's by the late Henry J. Kaiser to provide inexpensive, high-quality medical care for the employees of his industrial organization. Today, the Kaiser Plan serves more than 2.8 million members, using a network of approximately 2,800 physicians, 24 hospitals, and 60 medical clinics. Each region covered by the Kaiser Plan has a clinic with general practitioners and specialists. Patients have a "family doctor", who refers them to specialists within the clinic when necessary. If hospitalization is required, the patient is sent to one of the Kaiser hospitals, many of which adjoin the clinics.

ORGANIZATION

The Kaiser Plan is administered by three distinct groups: The Kaiser Foundation Health Plan, Inc.; the Permanente Medical Group in each region served by the Kaiser Plan; and the Kaiser Foundation Hospitals.

- Kaiser Foundation Health Plan, Inc.: This is a non-profit corporation, exempt from federal taxes on corporate income and generally exempt from state income taxes. Basically an administrative and contracting organization, the Plan does not provide any health care services. Its principal functions are (1) enrolling health plan members; (2) maintaining membership records; (3) collecting membership dues (that is, the periodic payments required to maintain eligibility for benefits); and (4) arranging for health care services by contracting with medical groups and facilities.

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[1] For a thorough report on the Kaiser Plan, see Anne R. Somers, ed., The Kaiser-Permanente Medical Care Program, Proceedings of a Symposium Sponsored by the Kaiser-Permanente Medical Care Program, The Commonwealth Fund, and The Association of American Medical Colleges, Oakland, California, March 1971 (New York, N.Y.: The Commonwealth Fund, 1971).

- Permanente Medical Groups: Each Permanente Medical Group undertakes for its region comprehensive responsibility to provide or obtain all professional services both of physicians and of related paramedical personnel to assure the provision of medical and related benefits to Kaiser Plan members. The group's responsibility encompasses all medically appropriate services in the physician's office, in the hospital, and, to a limited extent, in the patient's home. The professional services include all of the hospital-based specialty services such as radiology, anesthesiology, pathology, and physical therapy. No group is totally self-sufficient but must rely on community resources -- especially medical schools -- for certain infrequently used and highly specialized services.

There are six independent, legally separate medical groups, of which four are organized as partnerships, one as an unincorporated professional association, and one as a professional corporation. These are professional organizations functioning to provide physicians within the groups with personal income from medical practice, and their tax status is the same as that of any professional partnership, association, or corporation with no tax exemption or other special status. The salaries of Kaiser Plan doctors range from $25,000 for a starting physician to $100,000 for very senior persons or hard-to-get specialists, with an average of around $43,000 per year. This is said to compare favorably with the income of their colleagues in private practice.

The budget for which the medical groups is responsible includes the operation of outpatient offices, all non-doctor personnel, supplies, and overhead expenses as well as laboratories located in and out of hospitals, X-ray departments, physical therapy, and the like.

- Kaiser Foundation Hospitals: A separate non-profit corporation, Kaiser Foundation Hospitals, is responsible for providing not only inpatient hospital facilities but also outpatient office facilities and all other facilities, including land, buildings, and equipment, required to constitute a modern medical center. The Hospitals operate under a contract with the Kaiser Foundation Health Plan.

  Because of their tax-exempt status, the Hospitals are obliged to utilize their resources for general public benefit in such fields as charitable care, education, and research. The Kaiser Foundation Research Institute, a separate accounting division within the hospital corporation, has been established as a vehicle for conducting major non-clinical research.

  In addition to the active medical staff, consisting primarily and often exclusively of Permanente physicians, each Kaiser hospital has a sizeable courtesy staff of community physicians privileged to admit patients within the limits of available capacity.

  The Hospitals and the Kaiser Foundation Health Plan have a single management, at least at the level of the regional manager, and budgeting for the two is combined.

BASIC PRINCIPLES

The Kaiser Plan operates under a number of basic principles.

- The consumer should have a choice. At least one alternative means of health insurance must be offered each individual eligible to join a Kaiser Plan. Every Kaiser member can drop his plan and change to an alternative carrier should he become dissatisfied.

- The membership should have some voice in the program. Although there are no consumer representatives on the various boards of directors, some geographic areas have health plan councils with representatives from the membership groups. Individual members, too, often exert influence on the health plan organization on matters specific to their own group. If, after labor-management bargaining, an employer-employee group should want to cut its payments to Kaiser, Kaiser will arrange to cut the benefits of the group so that the reduced payments will cover the costs.

- Coverage should be broad. In addition to hospital coverage, the Kaiser Plan provides nearly all professional services at home or in the clinic, although some Kaiser programs do not cover psychiatric, convalescent, or dental care. Outpatient drugs are covered, and, in some programs, so are eyeglasses. Over the years Kaiser benefit coverage has been repeatedly broadened. Various options are now available. For example, although most Kaiser groups have hospital coverage for only 111 days per person per year, groups that want 365 days of hospital coverage or extended care benefits can get these additions on a special loading basis.

- The plan is financed by membership dues paid in advance. The same prepaid monthly rates for the same benefits are charged to individuals or groups regardless of age and sex and regardless of utilization. Since prepayment is made directly to the providers of care and is not determined by actual services rendered, both the hospitals and the doctors are better off if the patient remains well. Prepayment coverage is as comprehensive as possible in order to remove financial barriers that could keep members from seeking care early. Despite prepayment, it is claimed that overutilization by members with psychosomatic ailments has not been a problem.

- Medical care is provided by multi-specialty groups, which are based on a partnership rather than a salaried doctor arrangement. These groups, which take responsibility for providing comprehensive medical care to the Kaiser plan membership, are independent organizations with absolute freedom of practice and no lay domination or control. However, in cooperation with the Kaiser Plan and the Kaiser Hospitals, the medical groups play a role in administering the overall Kaiser program. It is claimed that physicians have been able to work well in tandem with the Plan and the Hospitals despite the fact that the physicians constitute an organization of "resolute, high-principled, and contentious professionals" and the other two are non-profit corporations with "strong, aggressive lay management." The three groups are not bound together by contracts but by common goals and shared philosophies.

- Medical care and hospital care should be coordinated. Inpatient and outpatient facilities are combined for optimal utilization of offices, hospital facilities, X-ray, laboratory, and other equipment. The Kaiser Plan, the Kaiser Hospitals, and the Medical Groups share responsibility for striking a medically appropriate balance between economy and quality and for ensuring appropriate utilization of facilities. Major policy decisions are made jointly after consultation and mutual consent.

- Prepaid dues (plus other revenue) should cover the financial requirements of the Kaiser Plan. The Health Plan's payments to the Kaiser Hospitals -- when taken in conjunction with the hospitals' revenues from non-Plan sources -- must be enough not only to cover operating costs but also to provide the hospitals with funds for construction and for new equipment. To the Medical Groups the Plan pays a negotiated and contractually agreed amount per member per month.

The Plan also pays the Medical Groups on a cost-reimbursement basis for certain types of additional expenses incurred in connection with Group functions but not within the Group's control (e.g., a union-negotiated wage and salary increase covering clerical employees of all organizations within the program). In addition, the Plan sets aside funds to finance a retirement program for physicians in the Permanente Groups.

If the whole program in a region was planned well and performed well, there will be some revenue remaining in the Plan's pool even after payments to the Hospitals and Medical Groups have been made. One-half this amount is distributed to the Medical Group as incentive compensation, and the Medical Group, in turn, uses at least a portion of this to pay bonuses to the doctors as a supplement to their salaries. The remainder is retained by the Hospitals and Health Plan as additional earnings available for facility development, debt repayment, or other program purposes. This incentive compensation plan is currently in effect only in the two California Kaiser Plans, which are much the largest and oldest ones.

SUCCESS OF THE KAISER PLAN

Has the Kaiser Plan in fact accomplished all that its ardent proponents claim? Some measure of its success is indicated by the following:

- Membership in the Kaiser Plan has grown steadily and rapidly. In 1950 there were 154,000 members in all the Kaiser Plans; by 1960 there were 808,000, by 1970 there were 2,166,000,[1] and by May 1975 the number had grown to 2,838,957.[2] New members are won without an advertising program, but approximately 87% of the members join through an employer or a union.[1] Members are free to leave the plan, but it is claimed that many retain their membership even when they move out of the area served by the plan. A 1970 survey in Southern California indicated 80% of the members felt their professional contacts were "satisfactory" or better, and 95% regarded the Kaiser Plan as a "good" or "excellent" value.[2] Kaiser membership consists primarily of employed blue-collar and white-collar workers and their families, and this includes comparatively few from the lowest income groups and from the over-65 population, which tend to have the most severe medical problems.

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[1] Somers, op. cit., p. 197.

[2] Information supplied on the phone by Kaiser Foundation Health Plan, June 1975.

- Kaiser hospital utilization rates are significantly below the rates of comparable populations. While enrollees in the Federal Employees Health Benefits Program have consistently experienced utilization rates in excess of 900 hospital days per 1,000 members per year, Kaiser Plan members have consistently enjoyed a hospital utilization rate of between 480 and 510 days per 1,000 members per year.[3] Even if adjustment is made for differences in the social characteristics and age distribution of the U.S. population and of Kaiser members, the Kaiser hospital utilization rates have been impressively low, as can be seen in Exhibits S-III-1 and S-III-2. By 1974 Kaiser's hospital utilization rate had declined even farther than the 1961-1970 rates indicated in the exhibits.[4] While Kaiser hospital utilization rates are decreasing slightly, the number of doctor office visits per member per year has remained remarkably constant at about 3.6 over the past 15 years. This would suggest that Kaiser patients are not getting sick less often, but their maladies are more often remedied without resort to hospital care, and/or that the length of their stays in hospitals is declining. Exhibit S-III-2(B) illustrates this from 1961-1970, and the trend has not been significantly altered through the past 5 years.[1]

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[1] Somers, op. cit., p. 60.

[2] Sheila Johnson, "Health Maintenance: It Works," New York Times Magazine, April 28, 1974, p. 38.

[3] Johnson, op. cit., p. 36.

[4] Kaiser Foundation Health Plan, Medical Economics Department, telephone interview, July 1, 1975.

- The Kaiser Plan has been able to provide health care at a comparatively low cost. In 1967 the National Advisory Commission on Health Manpower determined that "The Kaiser Foundation Medical Care Program has been able to achieve significant economies in the use of scarce resources and in the medical expenses of their subscribers."[2] The Social Security Administration in 1971 calculated that per capita medical expenditures for hospital use were respectively 18% and 11% lower in Northern and in Southern California for Kaiser enrollees compared with care under other auspices.[3]
- Despite Kaiser's low costs, the National Advisory Commission on Health Manpower concluded that "The quality of care provided by Kaiser is equivalent to, if not superior to, that available in most communities."[4] A 1972 study by the UCLA School of Public Health analyzed family medical records of persons enrolled in

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[1] *Ibid.*

[2] *Report of the National Advisory Commission on Health Manpower*, Vol.II (Washington, D.C.: U.S. Government Printing Office, November 1967).

[3] Milton Roemer and William Shonick, "HMO Performance: The Recent Evidence," *Health and Society* (Milbank Memorial Fund Quarterly), Summer 1973, pp. 284-285.

[4] Johnson, *op. cit.*, p. 40.

three types of health plans, including Kaiser, and determined that the quality of medical care was highest for group practice plan members.[1]

- The Kaiser Plan has failed to make any major innovations in the practice of medicine despite its concern about providing health care economically. For example, the National Advisory Commission on Health Manpower reported that, "There does not appear to be unusual substitution of auxiliary personnel for physicians."[2]

- Well established Kaiser Plans are financially self-sufficient. They have been able to build into their revenue structure an income flow sufficient to cover all operating requirements and to provide for moderate but sufficient generation of capital for facility improvement, facility replacement, and reasonable growth.[3]

  Kaiser Plans have no regular source of outside financing other than long-term borrowing from the money markets. Initially new Kaiser Plans, such as the ones in Colorado and Ohio, operate in the red, but they reach a break-even point once their membership has grown sufficiently.

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[1] Kaiser Foundation, Kaiser Foundation Medical Care Program 1973.

[2] Somers, *op. cit.*, p. 70.

[3] *Ibid.*, p. 30.

Exhibit S-III-1

KAISER FOUNDATION HEALTH PLAN HOSPITAL UTILIZATION RATES BEFORE AND AFTER AGE AND SEX ADJUSTMENT: 1969

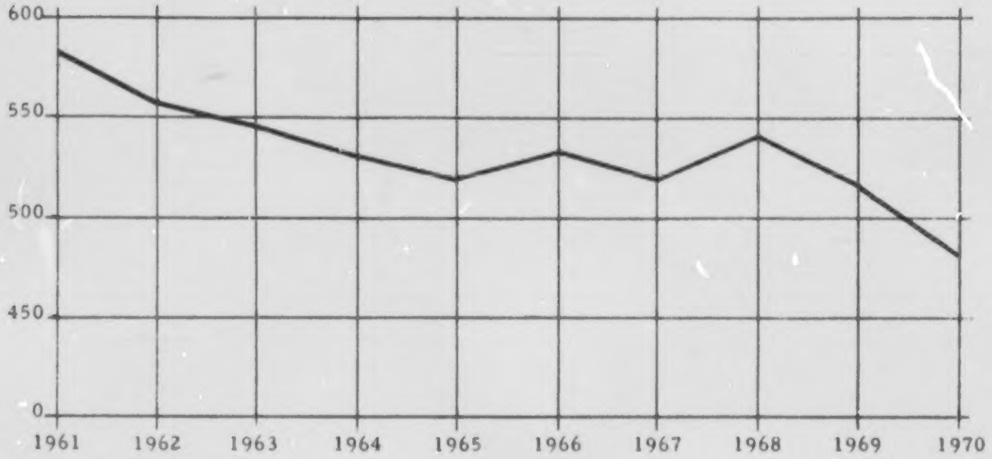
	Hospital Discharges per 1,000 Members	Hospital Days per 1,000 Members
Kaiser Utilization Rates:		
A. Before adjustment	78	488
B. After adjustment to Northern California Region population distribution	87	605
C. After adjustment to California population distribution	86	604
D. After adjustment to U.S. population distribution	86	613

Source: Anne Somers, ed., The Kaiser-Permanente Medical Care Program, Proceedings of a Symposium Sponsored by the Kaiser-Permanente Medical Care Program, The Commonwealth Fund, and The Association of American Medical Colleges, Oakland, California, March 1971 (New York, N.Y.: The Commonwealth Fund, 1971). p. 44.

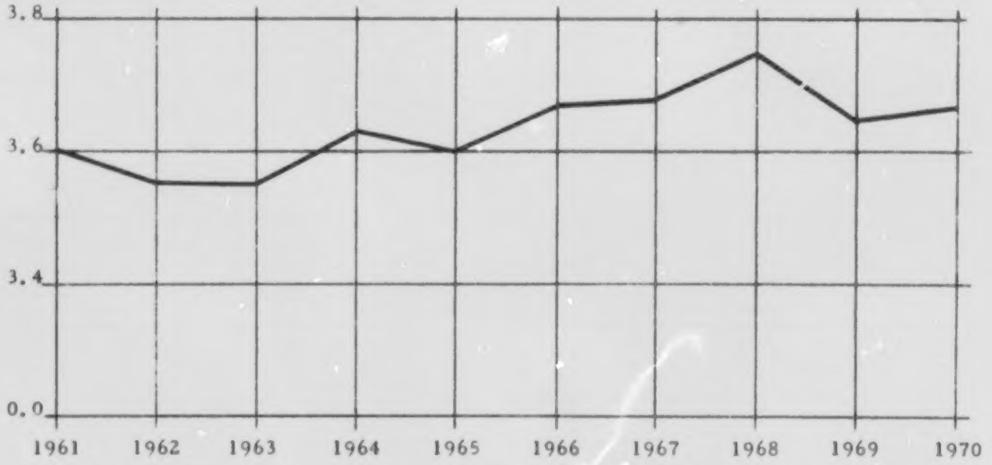
Exhibit S-III-2

PATIENT UTILIZATION OF THE KAISER FOUNDATION HEALTH PLAN
SOUTHERN CALIFORNIA REGION: 1961-1970

A. Trend of Hospital Patient Days Per 1,000 Members



B. Trend of Doctor Office Visits Per Member



SOURCE: Anne Somers, ed., The Kaiser-Permanente Medical Care Program, Proceedings of a Symposium Sponsored by the Kaiser-Permanente Medical Care Program, The Commonwealth Fund, and The Association of American Medical Colleges, Oakland, California, March 1971 (New York, N.Y.: The Commonwealth Fund, 1971), p. 63.

CHAPTER IV

THE HEALTH CARE SYSTEM

The changing characteristics of our population, the new medical technology, increasing government regulation, and changes in the economics of health care are generating new pressures on the health care system. The system must somehow find a way to deliver better health care to more people and simultaneously to reduce the cost of delivering this care. Some reorganization will clearly be necessary if the system is to meet this dual challenge.

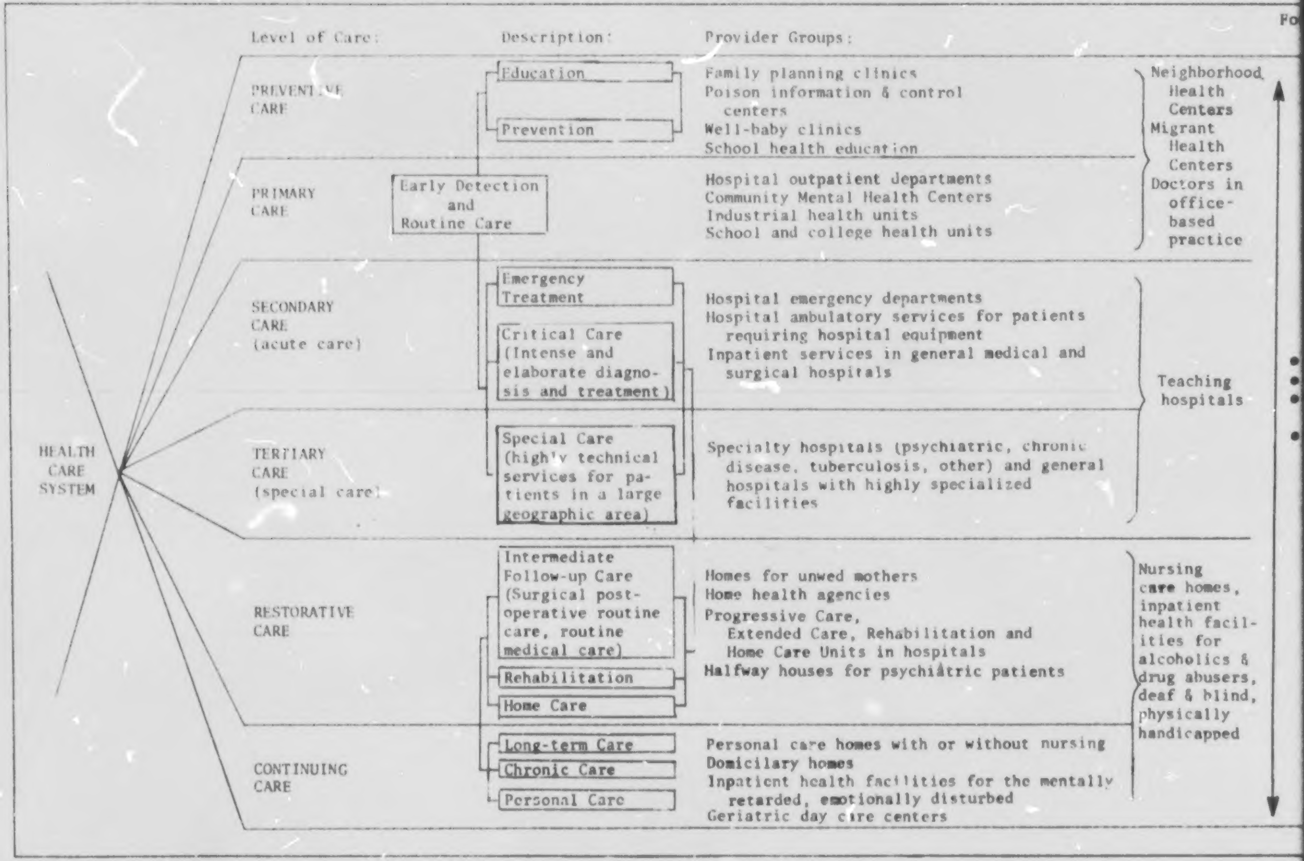
ORGANIZATION OF THE HEALTH CARE SYSTEM

Health care in the United States is currently delivered by a wide spectrum of providers, as can be seen in Exhibit IV-1. Although there is some informal cooperation, these various providers are not linked together in any systematic way. They operate independently and autonomously, each being responsible for only a small portion of what might be called the "total care" of the patient. As a result, patients may receive excellent care for particular health problems, but gaps in meeting their overall health care needs can occur because of inadequate coordination among the kaleidoscope of health care providers. The system gives high priority to acute care and pays little heed to the other ends of the spectrum, preventive care and continuing care.

The delivery of health care in this country operates on a free enterprise basis without the constraints that price competition imposes on other segments of the economy. There is competition among doctors to win patients, but price usually plays no role in the patient's choice of a physician, and few measuring sticks or consumer guides are available to help the often bewildered consumer. In selecting other health care providers, the patient has little voice, for it is primarily the doctor, not the patient, who determines how much and what kind of hospital care the patient receives. Thus, in a sense, doctors compete to win patients, while hospitals compete to win doctors. Hospitals add elaborate equipment at least in part to please their doctors, who are busily supplying our seemingly insatiable need for health care. Stimulated by the infusion of funds from the government and from health insurance, our health care system has grown like a well nourished Topsy, with little coherent effort being made to utilize health resources economically and efficiently.

Exhibit IV-1

SPECTRUM OF HEALTH CARE DELIVERY



Level of Care:	Description:	Provider Groups:	Fo
PREVENTIVE CARE	Education Prevention	Family planning clinics Poison information & control centers Well-baby clinics School health education	Neighborhood Health Centers Migrant Health Centers Doctors in office-based practice
PRIMARY CARE	Early Detection and Routine Care	Hospital outpatient departments Community Mental Health Centers Industrial health units School and college health units	
SECONDARY CARE (acute care)	Emergency Treatment Critical Care (Intense and elaborate diagnosis and treatment)	Hospital emergency departments Hospital ambulatory services for patients requiring hospital equipment Inpatient services in general medical and surgical hospitals	Teaching hospitals
TERTIARY CARE (special care)	Special Care (highly technical services for patients in a large geographic area)	Specialty hospitals (psychiatric, chronic disease, tuberculosis, other) and general hospitals with highly specialized facilities	
RESTORATIVE CARE	Intermediate Follow-up Care (Surgical post-operative routine care, routine medical care) Rehabilitation Home Care	Homes for unwed mothers Home health agencies Progressive Care, Extended Care, Rehabilitation and Home Care Units in hospitals Halfway houses for psychiatric patients	Nursing care homes, inpatient health facilities for alcoholics & drug abusers, deaf & blind, physically handicapped
CONTINUING CARE	Long-term Care Chronic Care Personal Care	Personal care homes with or without nursing Domicilary homes Inpatient health facilities for the mentally retarded, emotionally disturbed Geriatric day care centers	

Exhibit IV-1

SPECTRUM OF HEALTH CARE DELIVERY

Level of Care:	Description:	Provider Groups:		Forms of Integration of System:
PREVENTIVE CARE	Education Prevention	Family planning clinics Poison information & control centers Well-baby clinics School health education	Neighborhood Health Centers Migrant Health Centers Doctors in office-based practice	
PRIMARY CARE	Early Detection and Routine Care	Hospital outpatient departments Community Mental Health Centers Industrial health units School and college health units		
SECONDARY CARE (acute care)	Emergency Treatment Critical Care (Intense and elaborate diagnosis and treatment)	Hospital emergency departments Hospital ambulatory services for patients requiring hospital equipment Inpatient services in general medical and surgical hospitals	Teaching hospitals	• HMO's • Shared services • Regionalization of care • Transfer agreements
TERTIARY CARE (special care)	Special Care (highly technical services for patients in a large geographic area)	Specialty hospitals (psychiatric, chronic disease, tuberculosis, other) and general hospitals with highly specialized facilities		
RESTORATIVE CARE	Intermediate Follow-up Care (Surgical post-operative routine care, routine medical care) Rehabilitation Home Care	Homes for unwed mothers Home health agencies Progressive Care, Extended Care, Rehabilitation and Home Care Units in hospitals Halfway houses for psychiatric patients	Nursing care homes, inpatient health facilities for alcoholics & drug abusers, deaf & blind, physically handicapped	
CONTINUING CARE	Long-term Care Chronic Care Personal Care	Personal care homes with or without nursing Domicilary homes Inpatient health facilities for the mentally retarded, emotionally disturbed Geriatric day care centers		

PREVENTIVE CARE

Preventive care is the weakest point in our health care system. Educating people about good health habits and taking measures to prevent illness are relatively simple and inexpensive procedures that have no glamour in a system geared to sophisticated clinical technology. Such preventive care programs as exist tend to be underfunded and understaffed. In theory, preventive care programs should be part of health care services at every level, but, as a general rule, this is done systematically only in such HMO-type organizations as Kaiser Permanente and the Harvard Community Health Plan.

Some institutions currently focusing on preventive care are the following:

- School health programs: Schools attempt to teach their students good health habits, to educate them about the hazards of smoking, drinking, and drugs, to help them understand the functioning of their bodies, and to provide them with sex education. Schools also often have programs to test the hearing, vision, and teeth of students to detect problems that need correction. And schools sometimes have inoculation programs or require students to get inoculations elsewhere.
- Well baby clinics: These provide regular checkups and inoculations to babies, and they sometimes have programs to educate mothers on proper care of their babies. Any serious health problems uncovered in these clinics are referred elsewhere for treatment.
- Family planning clinics: Family planning services are provided in free-standing clinics, postpartum clinics in hospitals, in neighborhood health centers, and, of course, in doctors' offices. In 1973, nearly 7% of the nation's non-federal, short-term hospitals offered family planning services,[1]

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[1] American Hospital Association, Hospital Statistics, 1974 ..., op. cit., p. 9.

and growing pressure from such groups as the League of Women Voters will undoubtedly increase the number of hospitals providing such services.

- Poison information and control centers: These centers seek to educate consumers about the dangers of certain substances and to tell people what measures to take in case of accidental ingestion of poisons.
- American Health Foundation: Financed primarily by federal grants, this foundation has set up a multiphasic screening center to detect illnesses, has issued recommendations for changes in the average American diet, organizes smoke cessation clinics, has created TV cartoons on preventive medicine, and has developed teaching modules on health education for schools to use. It also does research to determine which factors put people at risk of certain maladies and is working on reducing the nicotine content of cigarettes.
- Various government programs such as the Environmental Protection Agency, the Occupational Safety and Health Administration, and the National Center for Disease Control: These programs are described in Chapter II.

Much preventive care is provided at the primary care level, in private doctors' offices or neighborhood health centers, where patients are given inoculations to protect them from diseases and tests to determine potential health problems. But educating consumers about good health habits tends to get overlooked: Doctors are often too busy treating existing health problems to devote adequate time and thought to educating their patients about means of avoiding health problems in the future.

PRIMARY CARE

Primary care, that is early detection and routine treatment of health problems, is the level of care at which most people enter the health care system. The point of entry can be through a variety of institutions: a physician practicing independently or in a group, a clinic, a hospital out-

patient facility or a hospital emergency room, a neighborhood health center, a community mental health center, a migrant health center, an industrial health facility or a school or college health unit.

The patient who elects to enter the health care system through a private doctor is sometimes faced with a difficult problem of selection. Relying often on suggestions from friends with little sophisticated medical knowledge, he must determine which of the available physicians in his area are "good." He must also ascertain which physicians practice the specialty he requires. Here he can receive some guidance from the local medical bureau, but the consumer is sometimes confused about exactly which specialty he needs, particularly now that doctors are tending to specialize in narrower areas. Of course, once the consumer has found a good general practitioner or family doctor, he has also found a good guide through the complexities of the health care system. Such a doctor can recommend appropriate specialists and can steer the patient to suitable hospitals should this be necessary. A clinic or a multi-specialty group practice also provides a good means of entry into the health care system, for such institutions generally offer their clients both "family doctors" and specialists to whom the patient can be referred if necessary.

In 1973 there were 295,257 physicians in patient care in the United States, or 141 physicians per 100,000 population. About 32% of these were interns, residents, fellows, or full-time hospital staff physicians. The remaining 68%, or 201,435 doctors, were in office-based practice. Although the total number of physicians grew 66% between 1950 and 1973, the number of office-based physicians in patient care declined from 108 per 100,000 population in 1950 to 96 in 1973.[1] The number of hospital-based physicians in patient care, however, has increased more rapidly than the population.

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[1] Nora Piore, "Problems and Opportunities for Community Hospitals in Primary Care," Community Hospitals and the Challenge of Primary Care (New York, N.Y.: Columbia University, Center for Community Health Systems, January 1975), pp. 13-14; and American Medical Association, Center for Health Services Research and Development, Profile of Medical Practice: 1974 (Chicago, Ill.: American Medical Association, 1974), p. 98.

This is a reflection of the fact that a growing number of people are entering the health care system not through a physician's office or a clinic but through a hospital facility such as an outpatient department or an emergency room. The reasons for the increasing tendency to seek primary medical care in a hospital are many and complex. A few of them are:

- Doctors refer their patients to hospitals for outpatient care because the hospital has equipment the doctor does not have in his office. This is a reflection of the new medical technology.
- Patients sometimes encounter difficulty in getting attention from a private doctor outside of office hours, while more and more hospital emergency rooms are open 24 hours a day.[1]
- Our inner cities and our remote rural areas are often inadequately supplied with doctors.
- In our mobile society, an individual may find himself confronted with a medical problem when he is new in town and without access to advice on selecting a "good" doctor. An institution such as a hospital is easier to locate than an individual doctor. This is particularly true for the poor.[2]

In 1954 there was one hospital outpatient visit for every nine visits to a physician's private office; by 1970 hospital visits had grown to one for every four to the private office.[3] In just a decade, outpatient visits to non-federal, short-term hospitals more than doubled, rising from 85.7 million in 1963 to 178.9 million in 1973. (See Exhibit IV-2.)

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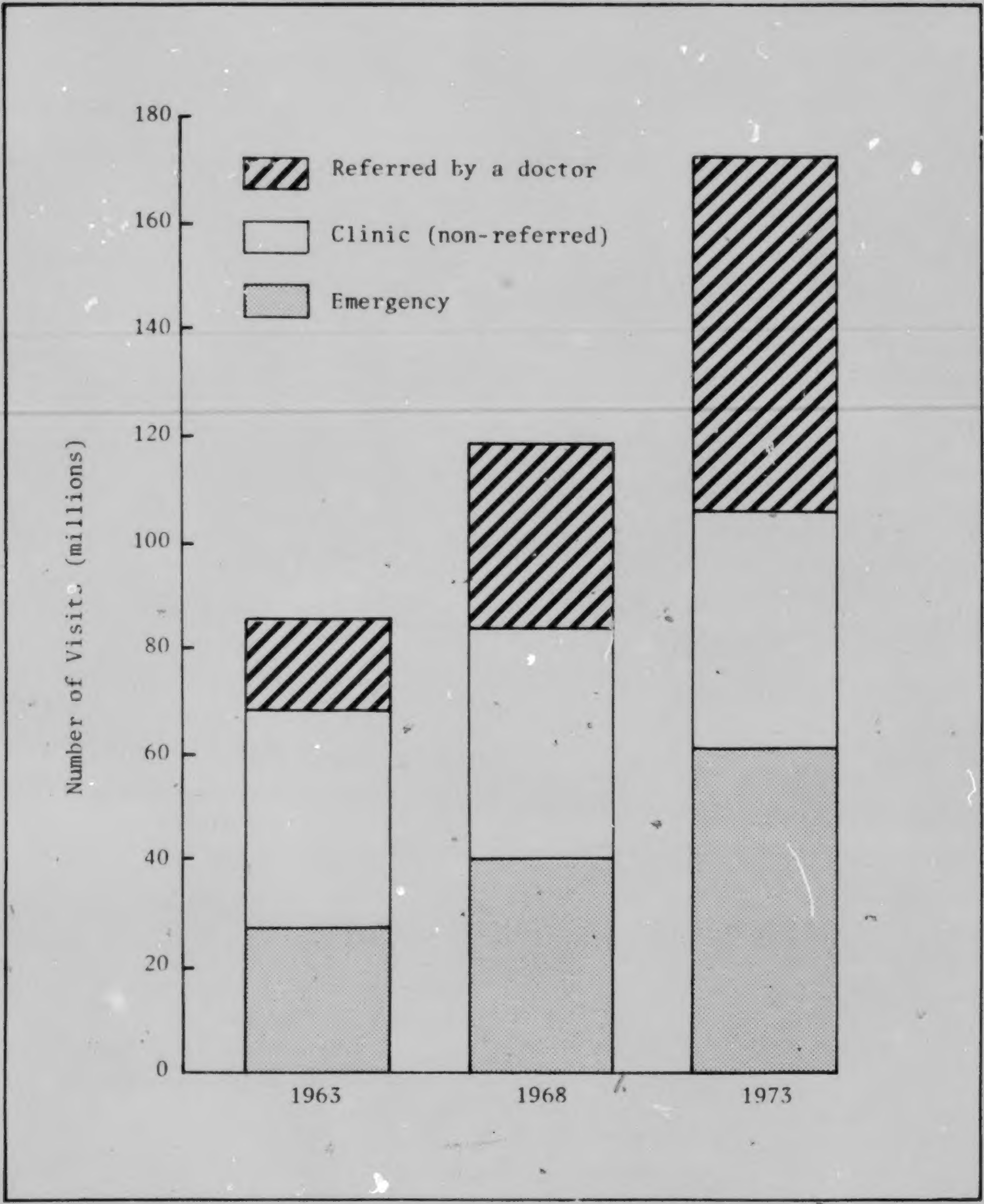
[1] Milton Roemer, "From Poor Beginnings, The Growth of Ambulatory Care," Hospitals, March 1, 1975, p. 42.

[2] Stuart Schweitzer, "Incentives and the Consumption of Preventive Care," Consumer Incentives for Health Care, ed. Selma Mushkin (New York, N.Y.: Milbank Memorial Fund, 1974), p. 44.

[3] Nora Piore, Deborah Lewis, and Jeannie Seeliger, A Statistical Profile of Hospital Outpatient Services in the United States: Present Scope and Potential Role (New York, N.Y.: Association for the Aid of Crippled Children, August 1971).

Exhibit IV-2

NUMBER AND TYPE OF OUTPATIENT VISITS TO NON-FEDERAL, SHORT-TERM HOSPITALS: 1963, 1968, AND 1973



Source: American Hospital Association, Hospitals, Journal of the American Hospital Association, Guide Issue - Part 2, August 1, 1971, p. 448.

American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: 1974), p. 34.

There are three types of outpatient visits to hospitals. The type that has grown most rapidly is the visit that involves use of hospital emergency services: These grew sixfold between 1954 and 1973; and, while in 1954 such visits constituted 20% of all outpatient visits to non-federal, short-term hospitals, they had grown to 35% of the total in 1973.[1] "It can be assumed that this large increase probably was not because more persons needed emergency treatment but rather because more patients looked to emergency departments to meet their primary health care needs, which could not be met elsewhere."[2] A substantial portion of the patients coming to emergency rooms clearly are not true emergency cases: The New York United Hospital Fund, for example, found non-emergency cases in four hospitals surveyed ranged from 50% to 85% of all visits to emergency rooms.[3] Some of these cases are patients who have no other source of care, and others are patients with private doctors who were not available when needed or who instructed the patients to meet them in the emergency room.[4] The non-emergency cases inundating emergency rooms make it difficult to provide prompt treatment to true emergencies, while the patients seeking primary care face long waits to get attention from harried doctors. And there is little follow-up provided patients treated in emergency rooms.

Another type of outpatient visit that has grown rapidly is the visit of a patient who has been referred to the hospital by his doctor. Such patients come to the hospital to use equipment not available in a doctor's office or to consult a specialist in one of the hospital's specialty clinics. Referral visits increased fivefold between 1954 and 1973,[5] reflecting the greater specialization and the increasingly sophisticated technology of U.S. medicine. Hospitals are finding, however, that perhaps half of the patients using their outpatient specialty services are not patients referred by a doctor but patients seeking primary care that apparently they could not readily obtain elsewhere.[1] Although the specialty clinics offer good care for patients requiring their specialized services or equipment, they can only provide fragmented, inadequate primary care.[2] Even the patient with a real need for the services of the specialty clinic may have his primary care needs neglected.

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[1] Roemer, "From Poor Beginnings ...," op. cit., p. 42.

[2] Ibid.

[3] Max Siegel, "Emergency Rooms Found Misused by New York City Patients," New York Times, April 39, 1974.

[4] Margaret Olendzki, "The Present Role of the Community Hospital in Primary Ambulatory Care," Community Hospitals and the Challenge of Primary Care (New York, N.Y.: Columbia University, Center for Community Health Systems, January 1975), p. 65.

[5] Roemer, "From Poor Beginnings ...," op. cit., p. 42.

The type of outpatient visit which has grown most slowly is the visit to an organized outpatient clinic providing primary care often to a regular clientele: These visits only doubled between 1954 and 1973. Services provided in organized clinics shrank from more than half of the total outpatient volume in 1954 to less than a third in 1973.[3] These clinics have regularly scheduled hours but will also treat patients who walk in without an appointment.

Traditionally, organized outpatient clinics and, to a lesser extent, emergency rooms served a predominantly indigent population, who could not afford medical treatment elsewhere. The clinics tended to be shabby and understaffed, and the patients were used as teaching material. However, with the inauguration of Medicare and Medicaid and with the growth of health insurance coverage of ambulatory care, more and more patients can afford to pay for their care whether in a hospital outpatient department or in a doctor's office. And charges for care in an outpatient department can be as high or even higher than those in a doctor's office, although the outpatient department may have a sliding scale of fees based on the patient's income. In some cases, care in an outpatient department is covered by health insurance while care in a doctor's office is not. In general, however, patients today seek primary care in a hospital outpatient facility, not in order to save money, but because they cannot readily find such care elsewhere. One hospital found in 1975 that 64% of its outpatients had some type of third party coverage, and an additional 23% were able to pay the full fees on a self-pay basis; only 13% had no health insurance and were unable to pay the full fees.[1]

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[1] Arthur Berarducci, Thomas Delbanco, and Mitchell Rabkin, "The Teaching Hospital and Primary Care," New England Journal of Medicine, March 20, 1975, pp. 615-616.

[2] Margaret Olendzki, "What Hospitals Can Do About Primary Care," op. cit., p. 28.

[3] Roemer, "From Poor Beginnings ...," op. cit., p. 40.

The dramatic growth in the use of hospital outpatient services and the changing character of the users of these services is stimulating hospitals to reorganize their outpatient facilities. Traditionally the stepchild of hospitals, outpatient facilities today are being greatly expanded and are being physically renovated to make them more attractive. Full-time physicians are often hired and paid at adequate salary levels. Hospital housestaff are more often being assigned on a long-term basis, replacing rotation schemes which did not allow for the development of continuing patient-physician relationships. In many cases professional management personnel have been hired.[2] Clearer distinctions are being made between specialty services and primary care services, better referral between the two is being instituted, and new educational programs are being organized to emphasize primary care delivery.[3] Some hospitals are contracting with existing group practices to provide outpatient or emergency services. Other hospitals are converting their outpatient clinics into group practices, some of which offer patients prepayment as in HMO's.[4] Most hospital outpatient departments operate on a fee-for-service basis, but, with more efficient operations and with their growing ability to attract paying patients, outpatient revenues are more nearly matching outpatient expenses.[1] Non-federal, short-term hospitals found their outpatient revenues rising from 8.2% of total revenues in 1969 to 10.9% in 1973,[2] both because outpatient visits increased more rapidly than inpatient admissions and because revenues per visit rose more rapidly than revenues per inpatient day.

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[1] Berarducci, op. cit., p. 615.

[2] U.S. Department of Health, Education, and Welfare, Health Resources Administration, Selected Innovative Hospital Programs in Ambulatory Care, DHEW Publication No. (HRA) 75-610.

[3] Berarducci, op. cit., p. 616.

[4] See, for example, Gerald Katz and Fred Hollander, "From Clinic to Group Practice," Hospitals, March 1, 1975, pp. 67-71.

One disadvantage of the growth in hospital outpatient facilities is the hospital's natural focus on care of the sick rather than health maintenance. There are those who argue that the primary care now provided in hospitals should instead be delivered in autonomous community health facilities, linked in some fashion with hospitals to which patients with more serious medical problems could be referred.[3] On the other hand, the hospital does have the advantage of being the one institution in our fragmented health care system "with the potential for providing or assuming responsibility for the provision of the full range of comprehensive services."[4] A compromise between these two positions is being sought by some hospitals which are setting up satellite clinics or seeking affiliation with an HMO, group practice, or neighborhood health center.

The flood of patients pouring into hospital outpatient facilities brought attention to the difficulty certain segments of our population have in gaining access to primary care. The federal government, therefore, began to finance the establishment of neighborhood health centers and migrant health centers to provide preventive and primary care to the poor and to migrant workers. Many of these centers are sponsored by a hospital, which provides back-up for the center, supervising or supporting the care provided in the center and receiving those center patients requiring hospital care.

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[1] U.S. Department of Health, Education, and Welfare..., Selected Innovative..., op. cit.

[2] American Hospital Association, Hospital Statistics: 1974 ..., op. cit., p. 198 and Hospitals, Guide Issue, Part 2, August 1, 1970, p. 502.

[3] Julius Richmond, Currents in American Medicine (Cambridge, Mass.: Harvard University Press, 1969), pp. 97-98.

[4] Anne Somers, Health Care in Transition (Chicago, Ill.: Hospital Research and Educational Trust, 1971), p. 31.

These centers generally operate on a fee-for-service basis, just as private doctors do, but many center patients have their bills paid by Medicare or Medicaid. For those patients who pay their own bills, charges are on a sliding scale depending on the patient's income. In 1974 there were 157 of these health centers providing care to 1.6 million people.[1]

The government has also helped finance the establishment of community mental health centers, which provide outpatient care for mental problems, day hospitals for psychiatric patients requiring partial hospitalization, and halfway houses for psychiatric patients making the transition back into the outside world. These centers seek to treat patients without removing them from the community and to provide care the patients can afford.

A substantial number of companies have established health units in their plants to provide physical examinations and to treat injuries. A 1972 U.S. Department of Labor survey found that 65% of America's 60 million non-farm workers in about five million work places were provided with either full-time or part-time physician's services at their place of work or in a nearby clinic.[2] In addition, about 150 "labor health centers" have been organized by unions to give physical examinations, to detect occupational diseases, and to give primary care. Many of these centers are now operated by labor-management trust funds.[3] The U.S. Occupational Safety and Health Administration (OSHA) was supposed to foster these industrial health units, but, in fact, OSHA's emphasis has been on safety standards rather than health care. The recession has also made employers reluctant to take on the added cost of plant health services.

Many schools also have health services, and the scope of these services has gradually expanded from control of infection to the detection of physical and mental defects. Colleges generally provide even more comprehensive health services for their students.

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[1] National Planning Association, op. cit., p. 37.

[2] Roemer, "From Poor Beginnings...," op. cit., p. 40.

[3] Ibid., p. 41.

Private doctors are thus providing a far smaller portion of primary care than they used to, but the growth of other primary care institutions is largely due to the fact that private physicians were simply not meeting the primary care needs of the population. Primary care has been regarded by many doctors as less rewarding, either in money or prestige, than more specialized care.

SECONDARY AND TERTIARY CARE

The patient requiring more than routine treatment or diagnosis is referred by his doctor (or some other primary care provider) to a hospital that has more elaborate equipment than is available in the doctor's office. Secondary care (or acute care) can be provided in either a community or a teaching hospital, but tertiary care -- care requiring even more specialized facilities and staff than secondary care -- is generally provided in a teaching hospital or a specialty hospital.

Secondary and tertiary care are not necessarily supplied on an in-patient basis. Increasingly such care is being provided to ambulatory patients, who require sophisticated facilities (such as those providing cobalt therapy or renal dialysis), but do not require an overnight stay in the hospital. Such care can be provided in outpatient specialty facilities and in certain emergency rooms with specialized staff and facilities. Many hospitals also have established facilities for outpatient or one-day surgery for simple procedures.

Patients may enter the health care system at the secondary care rather than the primary care level. Hospital emergency rooms are the initial entry point into the system for some patients. Patients receiving tertiary care generally do not enter the system at this level but are referred there by a health care provider at a lower level. The patient may have been sent by a primary physician to a specialist who in turn sent the patient to a tertiary care facility, or the patient may have been transferred from a secondary care facility to one providing tertiary care as complications developed.

Since teaching hospitals provide both secondary and tertiary care, and since some community hospitals have added a few facilities for tertiary care, it is difficult to draw a clear dividing line between the two levels of care. Community hospitals focusing on secondary care generally serve a relatively limited geographic area, while tertiary facilities need patients from a wide geographic base if their highly specialized facilities are to be adequately utilized. The intermingling of secondary and tertiary care often leads to inefficient or uneconomic delivery of that care: Teaching hospitals with a high overhead provide care for patients with simple maladies that could be treated just as well and less expensively in a community hospital; community hospitals install specialized facilities which may be underutilized and therefore more costly per service provided. The care provided in underutilized facilities may also be of poorer quality because the staff doesn't have sufficient opportunity to practice its special skills.

The problem of distinguishing secondary and tertiary care is a relatively new one, since earlier in the century tertiary care really didn't exist. The health care providers that developed tertiary care haven't yet awakened to the economic and often also medical advantages of having hospitals specialize by level of care, but, as indicated in Chapter II, this type of specialization may eventually be forced on hospitals by rate regulators' refusing to reimburse fully for secondary care provided in expensive tertiary care institutions and by state licensing agencies' refusal to grant licenses for specialized facilities to community hospitals.

Hospitals also have not been too successful in segregating their secondary and primary care services: As was indicated above, many patients in need of primary care come to hospital departments designed to provide secondary or even tertiary care. A greater effort is being made, however, to reorganize hospital outpatient services so these various levels of care can be provided in an appropriate and efficient fashion.

Secondary and tertiary care has been the biggest growth area in the U.S. health care system, in part because of the better coverage of this care by health insurance, in part because of the funds pouring into research and hospital construction, in part because of the new medical technology, and in part because of doctors' great interest in this level of care. Doctors have been the ruling force in our health care system, and, to them, tertiary care in particular has been the glamorous part of health care, as is indicated by this comment of a bright young surgeon in a medical center: "We're not interested in the routine gall bladders and appendectomies; we want the tough cases, the open hearts and the brain tumors."[1] The modern hospital, the elaborately equipped "workshop" of increasingly specialized doctors, is a far cry from the hospital of a century ago, which was little more than a a hospice where the poor went to die. Then a doctor could do no more in a hospital than in a home, and those who could afford home care stayed away from the exposure to other diseases and the primitive care offered by hospitals.

RESTORATIVE CARE

The patient who has been receiving either secondary or tertiary care eventually reaches the point in his convalescence when he no longer needs the intensive medical and nursing services provided in an acute care facility. He may, however, not have reached the point where he is able to care for himself at home. To fill the gap between acute care and home care, an increasing number of restorative care facilities are being developed. These intermediate facilities, providing a lesser degree of nursing and medical care than an acute care facility, have several advantages:

- They are less costly to operate than an acute care facility since less nursing and less expensive equipment is required.
- They often provide better care to convalescing patients than an acute care facility, where the nurses are so busy caring for the seriously ill that they tend to neglect the convalescents.[2]

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[1] Howard Lewis, "Hospitals as Classrooms," Modern Healthcare, October 1974, p. 57.

[2] McKinsey & Co., op. cit., p. 23.

- Patients in the convalescent stage may need social services or rehabilitation care not available in an acute care facility.[1] For example, a patient who has had a colostomy, a stroke, or a spinal cord injury needs both physical help and psychological help in learning to live with his new condition.

Restorative care can be provided in a number of settings:

- A "progressive care" or "self-care" unit in a hospital;
- An "extended care facility" in a hospital;
- A general hospital's "rehabilitation unit" or department of rehabilitation medicine or physical medicine, which provides services on an inpatient or an outpatient basis;
- A chronic disease and rehabilitation hospital with medical rehabilitation services;
- A nursing care home;
- An outpatient clinic;
- A private doctor's office;
- Home care provided by such health agencies as the Visiting Nurse Association or the Home Care Unit of a community hospital;
- Partial hospital programs for psychiatric patients able to return home at night or to work during the day and halfway houses for psychiatric patients embarking on the transition back into the outside world.

Pressures on hospitals to cut costs are pushing them into establishing "progressive care" or "self-care" units for patients able to take care of themselves to a considerable extent but still needing medical treatment that can only be provided in a hospital. Patients in "self-care" units are ambulatory and generally require only limited nursing care. By 1973, 3.6% of all non-federal, short-term hospitals had such units, and the percentage of non-profit hospitals with such units was 5.0%.[2]

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[1] McKinsey & Co., op. cit., p. 23.

[2] American Hospital Association, Hospital Statistics, 1974..., op. cit. p. 204.

Hospitals are also establishing extended care units for patients who require physician services and continuous professional nursing supervision but not the level of service provided in acute care units. Medicare requires that hospitals receiving Medicare reimbursements have either an extended care facility of their own or a transfer arrangement with an outside extended care facility such as a nursing home. Medicare covers 100 days of care in an extended care facility, and more and more Blue Cross plans have some coverage of extended care. Hospitals with low occupancy rates often find it helpful to convert some of their surplus acute care beds into extended care beds. Pushed by these developments, nearly 12% of non-federal, short-term hospitals were operating extended care units in 1973.[1]

Rehabilitation units are being established in hospitals to provide "coordinated multi-disciplinary physical and restorative services"[2] for patients who must learn to cope with some new physical disability. In 1973 such units were reported in over 12% of non-federal, short-term hospitals.[3] These units can provide care on either an inpatient or an outpatient basis.

Some recently established rehabilitation units, however, have not been fully utilized, in part because of physicians' general lack of interest in rehabilitation. Doctors generally provide excellent care during the acute stages of an illness but tend to be less interested in the long drawn out convalescent stage. Many doctors also are ignorant of the possibilities of rehabilitation care. In a demonstration project, involving the introduction of comprehensive stroke rehabilitation programs in seventeen general hospitals in the Chicago area, it was felt necessary to stress educating the medical staff on the importance of early restorative care for stroke patients because "some physicians, open to the adoption of new drugs and procedures which have the weight of scientific authority behind them, resist other concepts and practices such as rehabilitation in medicine, which is foreign to their training and experience."[1] Rehabilitation has little status in the medical world.

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[1] Ibid.

[2] American Hospital Association, Hospitals, Guide Issue, Part 2, August 1, 1971, p. 493.

[3] American Hospital Association, Hospital Statistics, 1974..., op. cit., p. 205.

Furthermore, full utilization of a hospital's rehabilitation unit often requires cooperation and referral mechanisms between several neighboring hospitals. Such cooperative arrangements are not always successful for two reasons:

- Hospitals compete for patients. When hospital censuses are low, doctors tend to keep patients requiring restorative care in their own hospitals for an extended period of time, even if their hospitals do not have the full range of services necessary to rehabilitate the patients.
- Doctors like to watch their patients' progress but cannot easily do so when patients are located at other institutions. Transferring a patient to a rehabilitation unit may either require extra travel time for the doctor or loss of the patient to another doctor.

In addition to in-hospital services for convalescing patients, hospitals are creating home services to help patients who are ready to return home but still need some nursing or therapy services on a regular basis. Other agencies outside of hospitals, such as the Visiting Nurse Association, also provide such services to convalescing patients.

Most extended care facilities for convalescing patients are not in hospitals but in nursing care homes. These homes provide both extended care for convalescing patients and continuing care for patients who may end their days in the home. Nursing homes are discussed in the next section.

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[1] Chicago Heart Association, A Comprehensive Stroke Rehabilitation Project in Selected General Hospitals (Chicago, Ill.: Chicago Heart Association, May 1972), p. 29.

Because of the growing feeling that long-term institutionalization in a mental hospital should be avoided,[1] more and more general hospitals are providing short-term inpatient care for psychiatric patients. When ready for release, such patients may still require restorative care which can be supplied in a number of ways: day hospital programs for patients able to return home at night; evening or night hospital programs for patients who work during the day; outpatient psychiatric clinics attached to a hospital or in a community mental health center; care in a private psychiatrist's office; and/or a halfway house, which provides a home and limited supervision for psychiatric patients who during the day hold down a job, go to school, or perhaps go to a day hospital program.

Many convalescing patients, whether afflicted with physical or mental problems, are sufficiently ambulatory to get all the care they need in a doctor's office or in an outpatient clinic. For these patients, restorative care and primary care overlap.

It is clear from all the above that hospitals, which originally focused on secondary and tertiary care, have increasingly expanded into primary care, through their outpatient facilities, and into restorative care, through their progressive care, extended care, rehabilitation care, day hospital, and home care facilities. Thus domination of our health care system by hospitals has grown, not only because they have the elaborate equipment the new medical technology requires, but also because they have spread into other levels of care. The dominating role of hospitals has pushed the health care system into greater emphasis on high technology, but it may in time help integrate the increasingly differentiated levels of care.

CONTINUING CARE

Continuing care facilities provide long-term care for patients for whom there is little expectation of improvement in their mental or physical condition. There are three major types of continuing care institutions: nursing care homes, personal care homes, and institutions for the mentally retarded or mentally ill.

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[1] See discussion in the next section.

Nursing care homes provide both restorative care for convalescing patients and continuing care for the elderly. Nursing care homes offer less intensive nursing and medical services than acute care hospitals, but they do provide such nursing services as nasal feeding, catheterization, irrigation, oxygen therapy, hypodermic injections, intravenous injections, and the like. They employ at least one registered nurse or practical nurse at least 35 hours a week. There are two major types of nursing homes: skilled nursing facilities, of which there were 7,300 in 1973 providing services to almost two-thirds of the Medicare and Medicaid patients in nursing homes, and intermediate care facilities, providing a lesser level of medical attention to 375,000 patients in 8,300 institutions.[1] A few nursing homes are limited to caring for convalescent children or providing special services to mentally disturbed patients. However, the U.S. Public Health Service estimated in 1969 that 88% of the residents in nursing homes and related facilities were at least 65 years of age.

Nursing care homes have multiplied as our elderly population has grown, as the break-up of the extended family has made it more difficult for the elderly to be cared for by their own relatives, and as third parties have pressured hospitals to discharge patients no longer requiring acute care services. Medicaid coverage of nursing home care for the elderly poor has also stimulated the growth of these facilities. The number of nursing home beds nearly tripled between 1961 and 1971, rising from 311,700 to 917,707. (See Exhibit IV-3.)

Personal care homes and domicilary care homes provide a lower level of care to the elderly than nursing care homes. Such homes provide limited or no nursing services, but they provide their residents with such personal

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[1] Jonathan Spivak, "HEW Plans to Issue Regulations to Improve Safety and Medical Care at Nursing Homes," Wall Street Journal, January 14, 1974.

Exhibit IV-3

NURSING HOMES AND RELATED FACILITIES: SELECTED YEARS 1939-1971

	1939		1954		1961		1963		1967		1969		
	Units	Beds	Units	Beds	Units	Beds	Units	Beds	Units	Beds	Units	Beds	
Total	1,200	25,000	25,000	450,000	23,000	592,800	17,189	613,424	19,141	846,554	18,910[f]	943,876[f]	22
Nursing Care Homes[a]	NA	NA	7,000	180,000	9,400	311,700	8,128	319,224	10,636	584,052	11,484	704,217	12
Personal Care Homes with Nursing Care[b]	NA	NA	2,000	80,000	1,400	83,100	4,958	188,306	3,853	181,096	3,514	174,874	3
Personal Care Homes[c]	NA	NA	7,000	110,000	9,700	124,000	2,927	48,962	4,396	66,787	3,792	63,532	5
Domicilary Care Homes[d]	NA	NA	9,000	80,000	2,200	47,000	688	12,068	256	4,619	120	1,253	
Nursing Home Units in Hospitals	NA	NA	(e)	(e)	300	27,000	488	44,864	(e)	(e)	NA	NA	

Sources: U.S. Department of Health, Education, and Welfare, Public Health Service, Health Services and Mental Health Administration, Healt Statistics, 1969, May 1970, pp. 237-243, 257-263; also, Health Resources Statistics, 1974, p. 383.

U.S. Department of Health, Education, and Welfare, Public Health Service, Division of Hospital and Medical Facilities, The Nation Facilities, Ten Years of the Hill-Burton Hospital and Medical Facilities Program, 1946-56, PHS Pub. No. 616, 1958.

Notes: If room and board are the only services provided by an establishment, it is excluded as a health facility.
NA = Not Available.

[a] A nursing care home is one in which at least 50 percent of the residents receive one or more nursing services, and where at least one regi (RN) or licensed practical nurse (LPN) is employed 35 hours or more per week. Nursing services include nasal feeding, catheterization, ir oxygen therapy, full bed bath, enema, hypodermic injection, intravenous injection, temperature-pulse-respiration, blood pressure, applicat or bandage, and bowel and bladder retraining.

[b] A personal care home with nursing care is one in which either (a) some of the residents but less than 50 percent receive nursing care or (50 percent of the residents receive nursing care but no RN's or LPN's were employed full time on the staff.

[c] A personal care home is one in which the facility routinely provides three or more personal services but no nursing service. Personal ser rub or massage service or assistance with bathing, dressing, correspondence or shopping, walking or getting about, and eating.

[d] A domicilary care home is defined as one in which the facility routinely provides less than three of the personal services specified in th above and no nursing service. This type of facility provides a sheltered environment primarily to persons who are able to care for themse

[e] Included in "nursing care homes".

[f] Does not include "Nursing Home Units in Hospitals".

Exhibit IV-3

NURSING HOMES AND RELATED FACILITIES: SELECTED YEARS 1939-1971

1939		1954		1961		1963		1967		1969		1971	
Units	**Beds**	Units	Beds	Units	Beds	Units	Beds	Units	Beds	Units	Beds	Units	Beds
1,200	25,000	25,000	450,000	23,000	592,800	17,189	603,424	19,141	846,554	18,910 [f]	943,876 [f]	22,004 [f]	1,201,598 [f]
NA	NA	7,000	180,000	9,400	311,700	8,128	319,224	10,636	584,052	11,484	704,217	12,871	917,707
NA	NA	2,000	80,000	1,400	83,100	4,958	188,306	3,853	181,096	3,514	174,874	3,568	192,347
NA	NA	7,000	110,000	9,700	124,000	2,927	48,962	4,396	66,787	3,792	63,532	5,369	88,317
NA	NA	9,000	80,000	2,200	47,000	688	12,068	256	4,619	120	1,253	196	3,227
NA	NA	(e)	(e)	300	27,000	488	34,864	(e)	(e)	NA	NA	NA	NA

of Health, Education, and Welfare, Public Health Service, Health Services and Mental Health Administration, Health Resources
, May 1970, pp. 237-243, 257-263; also, Health Resources Statistics, 1974, p. 383.

of Health, Education, and Welfare, Public Health Service, Division of Hospital and Medical Facilities, The Nation's Health
Years of the Hill-Burton Hospital and Medical Facilities Program, 1946-56, PHS Pub. No. 616, 1958.

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bladder retraining.

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vice. This type of facility provides a sheltered environment primarily to persons who are able to care for themselves.

e homes".
g Home Units in Hospitals".

services as assistance with bathing, dressing, correspondence, or shopping. These homes, too, have increased rapidly in number, but far less rapidly than nursing care homes, as can be seen in Exhibit IV-3.

Chronic care hospitals provide inpatient care for those who need skilled nursing services for a chronic disease such as mental retardation, emotional disorders, tuberculosis, cerebral palsy, and so forth. Many, but by no means all, of these institutions are operated by some governmental body.

There is growing feeling that institutionalization should be avoided as much as possible both for those with mental problems and for the elderly, for long-term confinement in an institution tends to cause patients to deteriorate. State mental hospitals are shifting more of their patients elsewhere, but the shift is sometimes just from the mental hospital to a nursing home, and many patients may be, if anything, worse off in the nursing home than in the much criticized mental hospital. As Dr. Jonathan Cole, former superintendent of Boston State Hospital, has pointed out, "My guess is that a lot of patients went from middling to poor backward situations [in mental hospitals] to middling to poor nursing homes. Some are probably better off, and some are worse off."[1] A 1975 study by the Massachusetts Office of Health Planning found that in that state former state hospital patients are now occupying 13.5% of the beds in intermediate care facilities and 22% of the beds in rest homes offering room, board and minimal supervision.[2]

Sometimes former patients in mental hospitals go to halfway houses, where they receive some supervision in learning to live in the community. Some are working in protected workshops. Some patients with mental problems are being helped by outpatient psychiatric clinics or day hospitalization programs, some of which are attached to general hospitals and some of which are in separate facilities. Some general hospitals also have inpatient psychiatric facilities for patients needing short-term hospitalization, for a short hospital stay in a psychiatric crisis can often eliminate the need

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[1] Jean Dietz, "Study Shows Mental Patients Now in Nursing Homes," Boston Globe, July 20, 1975, p. 25.

[2] Ibid.

for long-term institutionalization. But a goodly number of former mental hospital patients are on their own in the community, and there is concern that, without any supervision, these patients are not taking the required medication regularly or are not coping adequately with life in the outside world. Particularly with modern medications, many mental patients can live in the community if given some help and supervision, and patients can respond well to the stimulation of the outside world. But patients have been moved out of mental hospitals more rapidly than facilities have been created for providing the help these people usually need.

While mental patients are apparently being moved out of hospitals too rapidly, the elderly are being confined in nursing homes more than is necessary. A 1973 survey of forty Detroit area nursing homes found that "as many as 40% of their residents are there because of social and financial -- not medical -- problems of old age....Thousands of single, divorced and particularly widowed men and women enter nursing homes because they have no other place to go..."[1]

A 1975 U.S. Senate report on nursing homes estimated that more viable home health programs could postpone or prevent the institutionalization of up to 2.5 million older Americans.[2] Expanded visiting nurse programs, home delivery of hot meals, provision of housekeepers and handymen, and transportation services would enable some elderly to maintain their own homes independently, but efforts to expand these services are hampered by inadequate Medicaid and Medicare coverage of home care. Medicaid pays about $3.75 billion, or 50%, of the nation's nursing home bills, but spends only about $24 million a year on home health care.[3] Medicaid and Medicare, in fact, have helped create the boom in nursing homes and have thereby exacerbated the American tendency to shove its elderly population out of sight.

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[1] University of Michigan Press Release, January 28, 1974, quoted in Medical Care Review, February 1974.

[2] Joann Lublin, "Alternatives to Nursing Homes," Wall Street Journal, April 4, 1975.

[3] Ibid.

One proposed remedy for the excess institutionalization of the aged has been dubbed "Aid to Families with Dependent Parents"; under this, a portion of Medicaid nursing home allocations would be given to families who, with this financial assistance, could afford to have their ailing, elderly parents live with them.[1]

Another means of keeping the elderly out of nursing homes is the geriatric day care center, which is a cross between a day hospital, providing daily medical treatment, and a senior citizens' social and recreational center. In Great Britain, geriatric day care centers have reduced the nursing home population to 2% of those over 65, while in the U.S. 5% of those in that age group are in nursing homes.[2] Geriatric day care is a fourth less expensive than institutionalization, and, more importantly, day care centers have proven more viable in sustaining people at the same level of impairment over time, while the health of comparison groups of nursing home patients deteriorated.[3] Patients put in even a well run nursing home tend to suffer from "transplantation shock" after giving up lifelong belongings and familiar surroundings to enter a place where they will likely die.

And all too many nursing homes are NOT well run. Recent federal and state studies in fourteen states found that a majority of nursing homes are unsafe, inadequately staffed, and neglectful of patients, and many operators engage in fraud, kickbacks, and profiteering.[4] The Senate Special Committee on Aging found that nursing homes suffer from lack of physicians' attention, have inadequate nursing staffs, and, as a consequence "unlicensed aides and orderlies with little or no training provide 80 to 90% of the care in nursing homes."[5]

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[1] Ibid.

[2] Ibid.

[3] Ibid., quoting the director of the Levindale Geriatric Research Center.

[4] Ibid.

[5] U.S. Senate Special Committee on Aging Press Release, March 3, 1975, quoted in Medical Care Review, April 1975, pp. 406-407.

Obviously the U.S. health care system is not serving well the growing segment of the population over 65. There is much less emphasis on geriatric care here than there is in a place like England. Dramatic cures at the secondary or tertiary level are more interesting to doctors than continuing care for the deteriorating or dying patient. Physicians are reluctant to visit patients in nursing homes, in part because they find the atmosphere there "depressing", and in part because the pay for such visits is so low.[1] Insurance coverage is far better for hospital care than for nursing home care. Hospitals are increasingly becoming the kingpin of the U.S. health care system, while the nursing homes, to which so many of our elderly are shunted, tend to be left to the shysters.

PROGRAMS TO COORDINATE THE DIFFERENT ELEMENTS OF THE SYSTEM

The U.S. health care system is a complex set of competing fiefdoms, providing care at six different levels in a bewildering array of settings. No structural or conceptual framework exists to exert control over the distribution of resources, services and facilities to deliver needed health care, although the new national health planning legislation seeks to fill this vacuum. (See Chapter II.) Essentially, the individual providers have been able to decide unilaterally what services to offer the consumer, and priorities have generally been determined by the interest of physicians and not by consumers' demands or policy-makers' plans. In many ways, the supply of physicians and hospital facilities has created consumer demand, rather than demand determining supply. Hospital beds tend to be filled no matter how rapidly they are built, and doctors generally have no difficulty attracting patients, no matter how many physicians are in the area. Health insurance and government programs have tended to remove financial restraints on the proliferation of physicians and hospital facilities in our more prosperous areas.

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[1] Ibid.

Individual providers have been giving patients excellent care, particularly at the secondary and tertiary level, but inadequate attention has been paid to providing comprehensive care that integrates the many types of services a patient may need. The patient may wander unaided from provider to provider seeking appropriate care from our increasingly specialized and fragmented system. Little coordination has existed among institutions. Such coordination of a patient's care as has existed has been based largely on physician referrals.

Although physicians are often not too helpful in steering patients to nursing homes, they happily guide patients to hospitals; indeed, it is generally the physician not the patient who determines the institution in which a given level of care is received. Physicians also refer patients to specialists when a different type of care is indicated, but specialists are less likely to refer patients to primary care physicians, principally because specialists tend not to think in terms of general comprehensive care. The physician referral system generally works best in guiding patients from primary to secondary or tertiary care but works less well in reversing the process or in moving patients on to restorative or continuing care.

In some cases physician referrals are based on medical school affiliations. A doctor practicing near his alma mater tends to refer patients to specialists teaching and/or practicing at teaching hospitals affiliated with his own school of medicine. In other cases, a physician tends to refer patients to specialists on the staff of the institution at which he has admitting privileges. Doctors, understandably, are not eager to lose patients and often try to keep them in institutions where the doctor can keep the patient at least partially under his care. And there is sometimes a temptation for a doctor to hang on to a patient whom he is not really qualified to care for.

This fragmented referral system is one reason for the excessive duplication of hospital services. The practicing physician has been eager to increase the level of care and scope of services offered at "his" institution so he would not need to transfer his patients to a hospital where he did not have admitting privileges. This pressure was amplified by the growing specialization in medicine in the 1950's and 1960's. Community hospitals were increasingly staffed by specialists, who wanted specialized facilities in which to practice their skills. Since third parties (health insurers, Medicare, etc.) generally reimbursed hospitals for all costs, no matter how rapidly those costs rose, hospital administrators readily acceded to the demands of the doctors filling their beds with a never ending stream of patients. The net result was needless duplication of services and facilities between competing community hospitals and between community hospitals and large tertiary care facilities. It became less clear when and where referrals should be made out of one institution at a given level of care to another institution.

A variety of efforts are now being made to improve the allocation of resources and to smooth the referral of patients among the disparate elements in the health care system. To improve resource allocation, national planning legislation has been passed, establishing Health System Agencies to coordinate the planning of health care institutions, and Certificate of Need laws have been passed to curb needless duplication of facilities. (See Chapter II.) To smooth referrals, hospitals have set up social service departments to help patients move from acute care facilities to restorative care and continuing care facilities. It has been relatively easy for hospitals to move into the breach here since nursing home care and home care tend not to be of great interest to many doctors.

But inter-institutional referrals are growing in areas where doctors have traditionally been the referral mechanism. One type of referral network is the HMO, which provides comprehensive care to enrollees for a fixed fee. In an HMO encompassing a group practice, there is an institutionalized referral system for moving patients from primary care doctors to specialists to hospitals and back again. All care (or most care) is under a single umbrella, and there is no incentive for a physician to hoard a patient for himself. Centralized medical records are kept and follow patients as they move from one type of care to another. Also the HMO which owns its own facilities is in a position to allocate resources efficiently among the various types of health care providers under its umbrella.

Another type of inter-institutional referral system that has come into being is that between a hospital and a satellite clinic or a neighborhood health center. When a patient requires secondary care, he is referred from the center to the hospital, which then refers the patient back to the center when the need for secondary care has passed. The center's doctors have admitting privileges at the hospital and can continue to supervise the patient's care and to see that his primary care needs are not overlooked.

Some tertiary care institutions have begun establishing formal referral relationships with surrounding community hospitals.[1] Three forces are fostering these inter-institutional referral systems. The tertiary care institutions recognize the growing competence of community hospitals and worry about the potential threat of these hospitals to their own admissions. The community hospitals, in turn, are having difficulty finding the money to install all the specialized facilities modern medicine requires. And state health authorities are pushing for the regionalization of hospital services, that is, for limiting highly specialized services to a few institutions and requiring the transfer to these institutions of patients in other hospitals needing the specialized services. State authorities are concerned not only about saving money through regionalization but also about improving the quality of care, for the staff in an underutilized specialized facility isn't able to acquire the experience to provide first rate care.

Another form of inter-institutional coordination has been suggested by Anne Somers. She has proposed that state authorities franchise most general hospitals as "public utilities" or "public service corporations." Each hospital would be responsible for providing or assuring the provision of the whole spectrum of comprehensive services, although the physical decentralization of services would be encouraged. However, there would be a single, computerized hospital-based patient record system, and the hospital's professional staff would monitor the quality and the utilization of all community health services. In multi-hospital communities, some system of overlapping franchises could be instituted to preserve adequate provider and consumer choice.[1]

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[1] See, for example; "North Shore Affiliates with Floating," This Week in Public Health, Massachusetts Department of Public Health, June 16, 1975, pp. 214-215.

Other forms of inter-institutional cooperation are designed more to cut costs than to integrate patient care. The simplest and most common form is the sharing of services among a group of hospitals. The sharing of services can be handled in a number of ways:[2]

- Referred services: A service is maintained by only one member of a group of health care institutions, and other institutions in the group eliminate the service and refer any patients who are in need of this service. Usually this arrangement is based on an informal agreement rather than a legal contract. It may be developed by a group of community hospitals to preserve their independence from a teaching hospital: The patient base of a group of community hospitals may be large enough to keep one specialized unit in the area adequately utilized, and having one unit in the area may eliminate the need to transfer patients to a teaching hospital where the doctors may not have admitting privileges.
- Purchased services: A health care institution may purchase a service, such as laundry or laboratory tests, from a commercial source or from another institution. The purchaser pays the supplier for the service and includes the cost of the service on the patient's bill. The institution obtaining the service does not operate it but assumes some responsibility for its quality.

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[1] Anne Somers, "The Hospital and the Health Care Delivery System," Business Horizons (Graduate School of Business, Indiana University), October 1972, pp. 65-70.

[2] U.S. Department of Health, Education, and Welfare, Health Resources Administration, Guidelines for Health Services Research & Development: Shared Services, DHEW Publication No. (HRA) 74-3023 (Rockville, Md.: February 1972).

- Multiple-sponsored services: A group of institutions may jointly control a service operated by a separate corporation whose board includes representatives from each of the sponsoring institutions. For example, a number of Minneapolis-St. Paul hospitals set up a community Hospital Linen Services to do laundry and an Affiliated Hospital Services Corporation to handle credit and collections and to do printing. Not every hospital uses all these services: Some purchase laundry services, some purchase printing services, and some purchase credit and collection services. The services are operated by hospital-owned, not-for-profit, tax-exempt, cooperative associations, whose boards include representatives from all the participating institutions. Each participating institution also made a capital contribution when the association was organized.[1]

- Regional association services: Some services are sponsored by a community hospital council, a hospital association, or a regional planning agency. A regional association service may be financed through association funds, assessments on members, direct charges for the service, or some combination of these. Common examples of services provided through a regional association are computerized information services, shared insurance programs, and management consulting services.

- Sharing of staff: Some institutions share professional and house staff with or without actual cash transactions. Residents may be rotated from one institution to another. A special expert may be jointly hired to work part-time in various institutions not in need of his services full-time. Continuing education programs may be organized for the staff at all the

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[1] Gerald Schilling, "Cost Containment through Sharing," Hospitals, January 16, 1975, pp. 48-51.

> participating institutions. Telemonitoring systems may be set up so that ECG's can be sent to a cardioscope at a central monitoring station to be read by skilled personnel, or a teleconference network can be installed to handle emergency situations.[1]

These various types of shared services are not sharply differentiated, and many shared service projects do not fit neatly into any one category. In addition, a particular service may be shared in a number of different ways. For example, patients may be referred to other institutions for some laboratory tests, some tests may be purchased from a commercial lab, and a multiple-sponsored lab may be utilized for other tests. In any case, the purpose of shared services is to cut costs for the participating institutions. A multiple-sponsored laundry is able to do laundry for a hospital less expensively than the hospital could do it for itself. A management consulting service sponsored by a regional association may help all the member institutions find ways of operating more efficiently. Staff-sharing arrangements are also designed to improve the quality of care by making the services of highly skilled personnel available to smaller institutions.

Some institutions go beyond sharing services and form some sort of merger. In some cases, there is an outright merger, with a single management system operating all services, even though the services may continue to be provided in several locations. In most cases, however, the merger is far less complete.

Sometimes a group of hospitals will form a consortium that shares services, programs, and staffs, although the individual hospitals continue to operate more or less separately. For example, eight hospitals in Hartford formed the Capital Area Health Consortium "to coordinate and further the health care delivery, medical, educational, research, administrative and other activities of its members."[1] The consortium seeks to coordinate programs and services to eliminate both unnecessary duplication and incomplete coverage of services, and it aims to coordinate research efforts and to integrate educational programs. The consortium has a board with three representatives from each member hospital, and there is a dollar limit on the capital improvements that can be made without the approval of the consortium's trustees. Member institutions have obligations in the areas of budgets and financial statements, and the board has the power "to monitor the quality of patient care provided by its members and to prescribe standards of patient care..."[2] Perhaps the most important innovation is that physicians, who formerly had admitting privileges at only one or two of the eight member institutions, have now been given the right to admit a patient to any facility. This opening up of admitting privileges should rein in one of the driving forces for needless duplication of services and should ameliorate the intensely competitive atmosphere that prevailed among the medical staffs of the member institutions.

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[1] "An Alliance for Sharing," Hospitals, December 16, 1973, pp. 51-53.

Another form of merger is what might be termed a "multihospital holding company."[3] In such an institution there is a central board and "a central staff, that is able to carry out broad administrative functions effectively and provide for cooperative development on all fronts, and a local unit management that can respond to community needs..."[4] Each member retains its own board and its own management and a certain amount of autonomy in its operations. The central board, on which all member institutions are represented, creates centralized systems for purchasing, personnel recruitment, laboratory, laundry, and other administrative services, where economies of scale can be gained from merged operations. "The resources of the merged institution are often large enough to permit employment of more experienced, better trained management staff with special expertise."[1] Standardized financial systems, utilization reporting systems, and the like are instituted, and cross comparisons between institutions can be made to locate problem areas. Plans of the various units are coordinated, and control is exercised over major capital expenditures of members. The merger increases the borrowing power of the institutions involved and gives them more influence with areawide planning agencies. The individual units usually continue to operate at their various locations, and duplication of services, departments, and manpower is by no means automatically eliminated, though the merger offers the potential to do so.

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[1] Howard Lewis, "A Togetherness Spirit in Connecticut," Modern Healthcare, July 1974, p. 26.

[2] Ibid.

[3] Carl Platou and James Rice, "Multihospital Holding Companies," Harvard Business Review, May-June 1972, pp. 15-20.

[4] Ibid.

Mergers can offer many advantages to doctors: admitting privileges at more institutions, access to more equipment, better continuing education programs, and the like. However, "some members of the medical staff may experience loss of authority if their departments are physically merged, and, similarly, functions previously carried out by one individual may now become a matter for committees. The new medical by-laws ... may alter privileges for some staff physicians ... Services may be departmentalized, and each department more highly organized and perhaps specialist-oriented."[2] The physician who had been a big fish in a small pond may suddenly find himself a very small fish. For this reason, efforts to promote mergers or even to share clinical services are likely to encounter medical staff resistance.

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[1] U.S. Department of Health, Education, and Welfare, Health Resources Administration, Guidelines for Health Services Research & Development: Hospital Mergers, DHEW Publication No. (HRA) 74-3024 (Rockville, Md.: February 1972), p. 13.

[2] Ibid., p. 14.

The doctors may have no objection to shared laundry services, but no obstetrician is likely to be enthusiastic about the elimination of the OB unit at "his" hospital and the transfer of all OB patients to a neighboring hospital where he will no longer be the big wheel.

But with growing governmental pressure to cut health care costs, doctors eager to preserve their traditional center of authority may be increasingly overruled by those pushing for greater integration of our health care system. The system may in time find its disparate elements tied together in some fashion by hospitals as these institutions continue to increase in power and begin to grow less in the thrall of doctors.

HOSPITALS

The hospitals that dominate our health care system take a multitude of forms. Some hospitals are specialized by disease, some are specialized by type of patient (for example, children or old people), and some are general hospitals providing care to many different kinds of patients with a variety of problems. Some hospitals are owned or operated by a medical school or closely affiliated with one, while others are not. Some hospitals are owned by some government agency, either federal, state or local. Some are privately-owned, non-profit organizations. Some are organized for profit as proprietary corporations or partnerships or as the enterprise of an individual. (See Exhibit IV-4.) Services, equipment, personnel, utilization, and costs vary greatly among hospitals depending on the ownership of the hospital, its character, and above all on its size. Doctors have traditionally been the oligarchs of our hospital system, but their influence is being reduced as the administration of hospitals grows more complex and subject to greater regulation.

NUMBER OF HOSPITALS

In 1973 there were 7,123 hospitals and over 1.5 million hospital beds in the United States. These hospitals admitted over 34 million inpatients and 234 million outpatients. Their total expenses were $36.3 billion, of which nearly three-fifths were payroll expenses. Of all the hospitals, 5.6% were federal hospitals; 11.7% were non-federal psychiatric hospitals, non-federal tuberculosis hospitals, or other non-federal, long-term hospitals; and 82.7% were non-federal, short-term hospitals.[1] Non-federal, short-term hospitals numbered 5,891 and accounted for 59% of all hospital beds, more than 90% of all inpatient admissions, and over three-quarters of all outpatient visits. Overall statistics on hospitals in the United States are given in Exhibit IV-5.

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[1] This category includes all non-federal, short-term, general hospitals or special hospitals other than psychiatric ones. They may be owned by a state or local government or they may be privately owned. They may be operated on a profit or non-profit basis. But they are not federal hospitals, the majority of their patients are short-term ones, and their primary function is not psychiatric care.

A PROFILE OF THE NATION'S HOSPITALS: 1973

(Number of hospitals)

	Long-Term					Short-Term			
	General	Psychiatric	Tuberculosis	Other	Total	General	Psychiatric	Other	Total
Total Hospitals in the U.S.	41	448	61	211	761	6,110	123	129[a]	6,362
Federal Hospitals	20	28	0	3	51	345	0	1	346
State Hospitals	12	304	35	40	391	151[b]	19	6[b]	176
Local Government Hospitals	7	17	21	51	96	1,648[b]	3	9[b]	1,660
Non-Government Hospitals For Profit	1	55	0	8	64	723[b]	62	34[b]	819
Non-Government Hospitals Non-Profit	1	44	5	109	159	3,243[b]	39	77[b]	3,359

Source: American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: American Hospital Association, 1974), pp. 22-25.

[a] Includes two tuberculosis and other respiratory disease hospitals not categorized by control.

[b] Hospitals in these categories are classified briefly as "non-federal, short-term hospitals" in this chapter.

A PROFILE OF THE NATION'S HOSPITALS: 1973

(Number of hospitals)

	Long-Term					Short-Term				Total Long-term & Short-term
	General	Psychiatric	Tuberculosis	Other	Total	General	Psychiatric	Other	Total	
U.S.	41	448	61	211	761	6,110	123	129[a]	6,362[a]	7,123[a]
	20	28	0	3	51	345	0	1	346	397
	12	304	35	40	391	151[b]	19	6[b]	176	567
	7	17	21	51	96	1,648[b]	3	9[b]	1,660	1,756
itals	1	55	0	8	64	723[b]	62	34[b]	819	883
itals	1	44	5	109	159	3,243[b]	39	77[b]	3,359	3,518

ital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.:
ital Association, 1974), pp. 22-25.

osis and other respiratory disease hospitals not categorized by control.

tegories are classified briefly as "non-federal, short-term hospitals" in this

Exhibit IV-5

TRENDS IN HOSPITAL UTILIZATION, PERSONNEL, AND FINANCES: SELECTED YEARS 1950-1973

	1950	1960	1964	1967	1970	1973	Percentage Chang 1950-73	 1964-67	 1967-70
All U.S. Hospitals									
Number of hospitals	6,788	6,876	7,127	7,172	7,123	7,123	+ 4.9%	+ 0.6%	- 0.7%
Number of beds (000)	1,456	1,658	1,696	1,671	1,616	1,535	+ 5.4	- 1.5	- 3.3
Number of admissions (000)	18,483	25,027	28,266	29,361	31,759	34,352	+ 85.9	+ 3.9	+ 8.2
Average daily census (000)	1,253	1,402	1,421	1,380	1,298	1,189	- 5.1	- 2.9	- 5.9
Number outpatient visits (000)	NA	NA	125,123	148,229	181,370	233,555	NA	+18.5	+22.4
Total expense ($000,000)	$ 3,651	$ 8,421	$ 12,031	$ 16,395	$ 25,556	$ 36,290	+894.0	+36.3	+55.9
Payroll expense ($000,000)	$ 2,191	$ 5,588	$ 7,975	$ 10,461	$ 15,706	$ 21,330	+873.5	+31.2	+50.1
Personnel (000)	1,058	1,598	1,887	2,203	2,537	2,769	+161.7	+16.7	+15.2
Non-Federal, Short-Term Hospitals									
Number of hospitals	5,031	5,407	5,712	5,850	5,859	5,891	+ 17.1%	+ 2.4%	+ 0.2%
Number of beds (000)	505	639	721	788	848	903	+ 78.8	+ 9.3	+ 7.6
Number of admissions (000)	16,663	22,970	25,987	26,988	29,252	31,761	+ 90.6	+ 3.8	+ 8.4
Average daily census (000)	372	477	550	612	662	681	+ 83.1	+11.3	+ 8.2
Number outpatient visits (000)	NA	NA	91,430	109,987	133,545	178,939	NA	+20.3	+21.4
Total expense ($000,000)	$ 2,120	$ 5,617	$ 8,349	$ 12,081	$ 19,560	$ 28,496	+1244.1	+44.7	+61.9
Payroll expense ($000,000)	$ 1,203	$ 3,499	$ 5,151	$ 7,246	$ 11,421	$ 15,867	+1218.9	+40.7	+57.6
Personnel (000)	662	1,080	1,333	1,619	1,929	2,149	+224.6	+21.5	+19.1
Other Hospitals									
Number of hospitals	1,757	1,469	1,415	1,322	1,264	1,232	- 29.9%	- 6.6%	- 4.4%
Number of beds (000)	951	1,019	975	883	768	632	- 33.5	- 9.4	-13.0
Number of admissions (000)	1,820	2,057	2,279	2,373	2,507	2,591	+ 42.4	+ 4.1	+ 5.6
Average daily census (000)	881	925	871	768	636	508	- 42.3	-11.8	-17.2
Number outpatient visits (000)	NA	NA	33,693	38,242	47,825	54,616	NA	+13.5	+25.1
Total expense ($000,000)	$ 1,531	$ 2,804	$ 3,682	$ 4,314	$ 5,996	$ 7,794	+409.1	+17.2	+39.0
Payroll expense ($000,000)	$ 988	$ 2,089	$ 2,824	$ 3,215	$ 4,285	$ 5,463	+452.9	+13.8	+33.3
Personnel (000)	396	518	554	584	608	620	+ 56.6	+ 5.4	+ 4.1

Source: American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: American Hospital Association, 1974), pp. 19-21.

Note: NA = Not Available.

Exhibit IV-5

TRENDS IN HOSPITAL UTILIZATION, PERSONNEL, AND FINANCES: SELECTED YEARS 1950-1973

	1950	1960	1964	1967	1970	1973	Percentage Change			
							1950-73	1964-67	1967-70	1970-73
	6,788	6,876	7,127	7,172	7,123	7,123	+ 4.9%	+ 0.6%	- 0.7%	0%
)	1,456	1,658	1,696	1,671	1,616	1,535	+ 5.4	- 1.5	- 3.3	- 5.0
s (000)	18,483	25,027	28,266	29,361	31,759	34,352	+ 85.9	+ 3.9	+ 8.2	+ 8.2
s (000)	1,253	1,402	1,421	1,380	1,298	1,189	- 5.1	- 2.9	- 5.9	- 8.4
isits (000)	NA	NA	125,123	148,229	181,370	233,555	NA	+18.5	+22.4	+28.8
,000)	$ 3,651	$ 8,421	$ 12,031	$ 16,395	$ 25,556	$ 36,290	+894.0	+36.3	+55.9	+42.0
00,000)	$ 2,191	$ 5,588	$ 7,975	$ 10,461	$ 15,706	$ 21,330	+873.5	+31.2	+50.1	+35.8
	1,058	1,598	1,887	2,203	2,537	2,769	+161.7	+16.7	+15.2	+ 9.1
Hospitals										
	5,031	5,407	5,712	5,850	5,859	5,891	+ 17.1%	+ 2.4%	+ 0.2%	+ 0.5%
)	505	639	721	788	848	903	+ 78.8	+ 9.3	+ 7.6	+ 6.5
s (000)	16,663	22,970	25,987	26,988	29,252	31,761	+ 90.6	+ 3.8	+ 8.4	+ 8.6
s (000)	372	477	550	612	662	681	+ 83.1	+11.3	+ 8.2	+ 2.9
isits (000)	NA	NA	91,430	109,987	133,545	178,939	NA	+20.3	+21.4	+34.0
,000)	$ 2,120	$ 5,617	$ 8,349	$ 12,081	$ 19,560	$ 28,496	+1244.1	+44.7	+61.9	+45.7
00,000)	$ 1,203	$ 3,499	$ 5,151	$ 7,246	$ 11,421	$ 15,867	+1218.9	+40.7	+57.6	+38.9
	662	1,080	1,333	1,619	1,929	2,149	+224.6	+21.5	+19.1	+11.4
	1,757	1,469	1,415	1,322	1,264	1,232	- 29.9%	- 6.6%	- 4.4%	- 2.5%
)	951	1,019	975	883	768	632	- 33.5	- 9.4	-13.0	-17.7
s (000)	1,820	2,057	2,279	2,373	2,507	2,591	+ 42.4	+ 4.1	+ 5.6	+ 3.4
s (000)	881	925	871	768	636	508	- 42.3	-11.8	-17.2	-20.1
isits (000)	NA	NA	33,693	38,242	47,825	54,616	NA	+13.5	+25.1	-14.2
,000)	$ 1,531	$ 2,804	$ 3,682	$ 4,314	$ 5,996	$ 7,794	+409.1	+17.2	+39.0	+30.0
00,000)	$ 988	$ 2,089	$ 2,824	$ 3,215	$ 4,285	$ 5,463	+452.9	+13.8	+33.3	+27.5
	396	518	554	584	608	620	+ 56.6	+ 5.4	+ 4.1	+ 2.0

ital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.:
ital Association, 1974), pp. 19-21.

able.

Between 1950 and 1973 the total number of hospitals increased 5%, the result of a 17% increase in the number of non-federal, short-term hospitals and a 30% decrease in the number of other types of hospitals. Over these years non-federal, short-term hospitals have grown in bed capacity even faster than they have grown in number. While the number of beds in other hospitals dropped by a third between 1950 and 1973, non-federal, short-term hospitals during that period expanded bed capacity by nearly 80%, although expansion has slowed down in recent years with increased regulation of capital expenditures.[1] Thanks to the growth of health insurance and the inauguration of Medicare and Medicaid, the average daily census in non-federal, short-term hospitals grew even more rapidly than bed capacity during the boom years in the 1960's, and the occupancy rate rose steadily. With increasing utilization controls,[2] however, the growth in the average daily census has now slowed down, and the occupancy rate is falling. Despite their dropping occupancy rates and despite increasing regulation of hospital expenditures, non-federal, short-term hospitals added 6.5% to their bed capacity between 1970 and 1973, a slower rate of growth than the 7.6% that occurred during the preceding three years, and still less than the 9.3% growth in 1964-1967, but still a considerable increase.

There are three forms of ownership of non-federal, short-term hospitals. The majority of these hospitals are privately owned, non-profit organizations operating under a wide variety of sectarian and non-sectarian auspices. Non-profit hospitals in 1973 constituted 56% of the non-federal, short-term hospitals and had 70% of the beds, 72% of the average daily census, and 67% of the outpatient visits.[3] The non-profits increasingly dominate non-federal, short-term hospitals, which, in turn, have become the keystone of the U.S. health care system.

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[1] See Chapter II for discussion of Certificate of Need laws and Section 1122 reviews.

[2] See Chapter II's discussion of Utilization Review Committees and PSRO's.

[3] American Hospital Association, Hospital Statistics, 1974..., op. cit., pp. 20-21.

State and local government hospitals, on the other hand, are diminishing in importance. As was indicated in Chapter II, these hospitals traditionally provided care for the poor, but, with the advent of Medicare and Medicaid, the poor can afford to go to private hospitals, for the government will pay their bills. As a consequence, government hospitals are losing patients to the private hospitals, and the occupancy rate in government hospitals has been declining even more rapidly than the rate in the non-profit hospitals. However, state and local government hospitals still comprise 31% of non-federal, short-term hospitals and have 23% of the beds, 22% of the average daily census, and 28% of the outpatient visits. These hospitals continue to provide a disproportionate share of outpatient care, presumably because the poor, for one reason or another, still have difficulty obtaining primary care elsewhere.

The remaining 13% of non-federal, short-term hospitals are proprietary institutions, operated for a profit by a multihospital chain or by a group of doctors. These, frowned upon by the non-profits, are an interesting phenomenon that will be discussed in the next section.

PROPRIETARY HOSPITALS

Proprietary hospitals (or the "deviants," as some of the literature has labelled them) are profit-making operations and thus must pay taxes, unlike non-profit or governmental hospitals. Although proprietary hospitals now constitute only 12% of all hospitals in this country, in 1910 they were 56% of the U.S. hospital system.[1] After the Civil War, proprietary hospitals grew rapidly in the West and Southwest, where more than three quarters of them are still located,[2] but in the East proprietary hospitals were largely a haven for doctors who had graduated from "unapproved" medical schools and were excluded from community-supported hospitals. With the disappearance of unapproved medical schools after the Flexner Report in 1910, for-profit hospitals ceased to be a haven for inadequate medical care, but their bad image has continued to linger on, in part because of the general feeling that hospital care should be of a benevolent, non-profit nature. Traditionally owned by the physicians who practice in them, proprietary hospitals are often the first to move into a growing middle class community where potential patients can be expected to be more prosperous and healthier than the average.

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[1] "Profit-Making Hospitals: Rx for Health Care Woes?" Hospital Tribune, September 16, 1974, quoted in Medical Care Review, October 1974, p. 1042.

[2] Julian Pettengill, "Financial Position of Private Community Hospitals, 1961-1971," Social Security Bulletin, November 1973, p. 13.

For-profit hospitals tend to be small: 70% of them have less than 100 beds. They generally focus on patients with simpler maladies and thus their average length of stay is considerably shorter than that at the non-profit hospitals (6.7 days for proprietary hospitals versus 7.9 days at the non-profits). They also do not provide their share of outpatient care, a type of care that has tended to be unprofitable to hospitals: For-profit hospitals have 6% of the average daily census of non-federal, short-term hospitals but only 4% of the outpatient visits.[1]

Proprietary hospitals are accused of "cream-skimming," taking profitable services and patients away from the non-profits and relegating to the non-profits the services and patients that produce deficits. For-profit hospitals are far less likely to provide community services such as outpatient care, emergency services, psychiatric care, rehabilitation, home care, social work, or family planning.[2] They generally don't treat troublesome patients such as alcoholics or drug addicts or people transferred to a hospital by police forces. Expensive facilities are generally less prevalent in proprietary hospitals than in their non-profit rivals, even if hospitals in the same bed-size category are compared. For example, among hospitals with 50-99 beds (the size of 32% of the proprietary hospitals), plant and equipment assets per bed are $22,778 for non-profit hospitals but only $14,050 for the for-profit hospitals. (See Exhibit IV-6.)

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[1] All the statistics on proprietary hospitals versus other non-federal, short-term hospitals are from American Hospital Association, *Hospital Statistics, 1974...*, *op. cit.*

[2] Pettengill, *op. cit.*, p. 13.

In the size category into which most proprietary hospitals fall (25-99 beds), personnel per patient and payroll expenses per adjusted patient day are roughly the same for both the non-profit and the for-profit hospitals. But non-payroll expenses and thus total expenses per adjusted patient day are far higher for the proprietary hospitals. Proprietary hospitals' low assets per bed and high non-payroll expenses may be due, at least in part, to the fact that, being subject to taxes, a for-profit organization may find it advantageous to rent rather than purchase much of its equipment and to make use of accelerated depreciation. For-profit hospitals are also more dependent on borrowed funds, as was shown in Exhibit III-13 in Chapter III, and this, of course, increases their non-payroll expenses. The fact that their payroll expenses are not out of line despite their reputation for attentiveness to patients may indicate that they make greater use of contractual services (food services, laundry services, etc.).[1]

Some of the higher expenses in for-profit hospitals may also be explained by the fact that their average length of stay tends to be shorter than in the non-profit hospitals of the same size. Although the comparative shortness of stays may be due in part to a less complex mix of cases being treated, much of it is undoubtedly due to the fact that such a high proportion of proprietary hospitals are in sections of the country where the average length of stay is low for all hospitals.[2] A shorter length of

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[1] _Ibid._, pp. 17-18.

[2] In 1973 the average length of stay in all non-federal, short-term hospitals in the U.S. was 7.8 days, but in the Pacific states it was 6.5 days and in the West South Central states it was 6.8 days. See American Hospital Association, _Hospital Statistics, 1974..._, _op. cit._, pp. 34, 48, and 5

Exhibit IV-6

FOR-PROFIT VERSUS NON-PROFIT
NON-FEDERAL, SHORT-TERM HOSPITALS: 1973

Bed Size	% of Hospitals In This Category With This Size		Average Length of Stay (days)		Occupancy Rate		Plant Assets/Bed		Total Expenses/Adjusted Patient Day		Payroll Expenses/Adjusted Patient Day	
	For-Profit	Non-Profit	For-Profit	Non-Profit	For-Profit	Non-Profit	For-Profit	Non-Profit	For-Profit	Non-Profit	For-Profit	Non-Profit
6-24 bed	10%	4%	5.1	6.2	57.0%	47.8%	$12,117	$13,095	$ 76.62	$ 70.82	$37.30	$39.94
25-49	31	14	5.7	6.2	63.8	57.7	10,194	17,303	80.33	74.10	39.03	40.52
50-99	32	22	6.5	7.2	66.8	67.3	14,050	22,778	96.32	79.84	44.92	43.58
100-199	21	25	6.8	7.3	67.5	73.3	18,104	26,522	106.42	91.42	49.38	50.50
200-299	5	15	7.5	7.6	77.0	78.0	18,510	31,102	102.02	101.37	51.00	56.87
300-399	1	9	7.7	8.0	76.3	80.8	22,018	31,545	109.88	103.09	50.73	57.95
400-499	0.4	5	7.7	8.2	59.6	82.8	27,556	34,711	121.41	107.81	57.42	50.53
500 and over	0.1	6	7.0	9.1	79.4	83.4	9,523	33,313	90.48	118.85	42.66	67.36
All Sizes	100%	100%	6.7	7.9	68.3%	77.8%	$16,200	$30,121	$ 99.39	$102.64	$47.02	$57.52

Source: American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: American Hospital Association, 1974), p

Exhibit IV-6

FOR-PROFIT VERSUS NON-PROFIT
NON-FEDERAL, SHORT-TERM HOSPITALS: 1973

spitals In ategory his Size	Average Length of Stay (days)		Occupancy Rate		Plant Assets/Bed		Total Expenses/Adjusted Patient Day		Payroll Expenses/Adjusted Patient Day		Personnel/ 100 Adjusted Patient Census	
Non-Profit	For-Profit	Non-Profit	For-Profit	Non-Profit	For-Profit	Non-Profit	For-Profit	Non-Profit	For-Profit	Non-Profit	For-Profit	Non-Profit
4%	5.1	6.2	57.0%	47.8%	$12,117	$13,095	$ 76.62	$ 70.82	$37.30	$39.94	232	281
14	5.7	6.2	63.8	57.7	10,194	17,303	80.33	74.10	39.03	40.52	241	246
22	6.5	7.2	66.8	67.3	14,050	22,778	96.32	79.84	44.92	43.58	248	253
25	6.8	7.3	67.5	73.3	18,104	26,522	106.42	91.42	49.38	50.50	259	268
15	7.5	7.6	77.0	78.0	18,510	31,102	102.02	101.37	51.00	56.87	239	279
9	7.7	8.0	76.3	80.8	22,018	31,545	109.88	103.09	50.73	57.95	244	281
5	7.7	8.2	59.6	82.8	27,556	34,711	121.41	107.81	57.42	60.53	270	286
6	7.0	9.1	79.4	83.4	9,523	33,313	90.48	118.85	42.66	67.36	237	304
100%	6.7	7.9	68.3%	77.8%	$16,200	$30,121	$ 99.39	$102.64	$47.02	$57.52	249	282

spital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: American Hospital Association, 1974), pp. 26-27.

stay tends to increase costs per patient day since more services are generally given a patient during the early part of his stay. These services, however, also increase a hospital's revenues, since such things as lab tests and X-rays are generally billed at a rate far greater than their cost.[1]

In any case, the higher operating costs of proprietary hospitals cannot readily be attributed to more expensive plant and equipment or to more personnel per patient. The expense figures thus do not seem to support the proprietary hospitals' claims to greater efficiency than their non-profit competitors.

Although the proprietary hospitals as a group do not have the facilities to provide their patients with more services than those given to patients in non-profit hospitals, charges tend to be higher in the proprietary hospitals. For example, in 1971, among hospitals with 25-49 beds, the average semi-private room charge per day was $38.81 in non-profit hospitals but $43.49 in proprietary hospitals. For hospitals with 50-99 beds, the comparable figures were $48.56 for proprietary hospitals and $43.65 for non-profit hospitals.[2]

The higher charges in proprietary hospitals, of course, reflect their higher costs, but the charges are still enough higher than costs to leave the proprietary hospitals with a tidy profit. In 1971, proprietary hospitals had a net income of $3.55 per adjusted patient day in institutions with 25-49 beds and $5.92 in institutions with 50-99 beds. In contrast, the non-profit hospitals in these size categories had an excess of revenue over expenses of only $1.57 and $1.88 respectively.[3] Proprietary hospitals with 25-49 beds had profits equal to 4.9% of revenues, and those with 50-99 beds had profits of 6.9%.

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[1] Stuart Auerbach, "Hospitals-for-Profit Grow," Washington Post, April 29, 1974, p. A-4.

[2] Pettengill, op. cit., p. 12.

[3] Ibid., p. 16.

A new type of proprietary hospital began springing into existence in the late 1960's: the multihospital chain, operated by lay managers rather than doctors. With 29 corporations managing 385 institutions, these chains now account for a third of proprietary health care institutions of all types. Concentrated in California, the West, and the rural South, chains save money by using the same building design repeatedly, by large-scale purchasing, and by working out the most efficient system for performing tasks like floor-mopping and bed-making. Their expertise in accounting, collecting Medicare payments, and living with federal cost controls contribute to the profitability of chains.

A recent innovation is the management contract under which the chain corporation operates non-profit community and even teaching hospitals. By 1973, approximately 4% of the beds in non-profit hospitals were in facilities with management contracts.[1] Trustees generally hire a chain when they have lost their administrator, but in some cases the old administrator stays on as an employee of the chain. The chains also bring in their experts for short periods to do such things as setting up data processing systems. The trustees of a managed hospital retain their final authority, but the chains customarily can exercise greater influence over trustees than the traditional administrator can.[2]

These management contracts aid the non-profit hospitals to improve their efficiency and provide additional revenues to the chains themselves at a time when the building of new hospitals by the chains is not profitable because of high interest rates and the acquisition of existing hospitals is not feasible because the low current value of chain corporation stock makes the prospect of trading hospital property for stock unattractive.[3]

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[1] Gregg Downey, "For Sale: Hospital Management," Modern Healthcare, June 1974, p. 37.

[2] Ibid., pp. 39-40.

[3] "Profit-Making Hospitals: Rx for Health Care Woes?" op. cit., p. 1044.

Despite the growth of these chains, it is unlikely that proprietary hospitals will ever become a major force in the U.S. health care system. Individual for-profit hospitals still tend either to close after a period or to become non-profit institutions. Without government grants or tax-exempt status, they are seriously handicapped. But their capacity to respond to population shifts and to satisfy customers make proprietary hospitals a useful transitional device for testing the need for a hospital in an area with a growing population. They will probably continue to be regarded as parasites by the non-profit hospitals, who are left with all the problem patients. But, with ever tightening cost controls, the non-profit hospitals may increasingly find some virtue in buying the management skills of the proprietary chains.

SPECIALTY HOSPITALS

There are two types of specialty hospitals: those created to take care of a specific type of disease and those designed to provide care to a special class of patient with all diseases. Specialized hospitals are generally declining in number, but there has been a rise in the number of hospitals specializing by type of patient. For example, in 1955 there were only 54 children's hospitals in the United States. By 1970 there were 114. (See Exhibit IV-7.)

On the other hand, hospitals specializing in a particular disease are decreasing rapidly. While in 1955 there were 374 hospitals for tuberculosis and other respiratory diseases, this number had dropped to 63 in 1973. There were 51 eye, ear, nose, and throat hospitals in 1955 and only 21 in 1973. And the number of maternity hospitals shrank from 78 in 1955 to 25 in 1973, a response to the declining birth rate in this country.

While specialized hospitals are generally declining, general hospitals are growing both in number and in their ability to care for patients with a wide variety of problems. Many large general hospitals today have specialty units which provide the kind of care that used to be available only in a specialized hospital. This increasing reliance on general hospitals is reflected in the fact that they constituted 78% of all hospitals in 1955 but had expanded to 86% by 1973.

Exhibit IV-7

NUMBER OF HOSPITALS BY SPECIALIZED TYPE OF SERVICE: SELECTED YEARS 1955-1973

Type of Service	1955	1960	1970	1973
Total	6,956	6,876	7,123	7,123
Total General Hospitals	5,431	5,659	6,069	6,151
Total Specialized Hospitals	1,525	1,217	1,054	972
Tuberculosis and other respiratory diseases	374	251	103	63
Psychiatric	586	531	552	571
Maternity	78	47	43	25
Eye, ear, nose, throat	51	40	26	21
Orthopedic	96	53	8	35
Contagious disease	20	-	-	-
Children's	54	57	114	-
Geriatric	-	-	30	-
Rehabilitation	-	-	44	69
Chronic	228[a]	101[a]	56	65
All other	38	137	78	123

Source: American Hospital Association, Hospitals, Journal of the American Hospital Association, Guide Issues, August 1956, 1960, 1970; also Hospital Statistics: 1974 Edition, p. 34.

Notes: - = Not reported.

The method of classifying hospitals changed between each of the years shown above. Therefore, a particular type of specialty hospital "not reported" in any one year may be classified in another category that year.

[a] "Chronic and Convalescent" in 1955 and 1960.

TEACHING HOSPITALS AND MEDICAL SCHOOLS

In 1973, 392 of the 7,123 A.H.A.-registered hospitals were members of the Council of Teaching Hospitals of the Association of American Medical Colleges. Thus only 5.5% of all hospitals could be classified as full-scale teaching hospitals. However, a larger number of hospitals, 866, were affiliated with a medical school in some way, and the percent of hospitals affiliated with a medical school increased from 5.6% in 1960 to 12.2% in 1973. (See Exhibit IV-8.) Most of these teaching hospitals were large institutions with 400 or more beds: 71% of the hospitals which are members of the Council of Teaching Hospitals and 53% of the hospitals affiliated with a medical school have at least 400 beds.

The full-scale teaching hospitals can in a sense be regarded as the core of our health care system. The research undertaken in these institutions generates new medical discoveries which flow out to the rest of the system. Teaching hospitals provide the clinical setting in which medical students receive their training. When these students later go out to man our health care system, they take with them the new concepts developed in these core hospitals.

But, while developing new medical techniques and new medical practitioners, teaching hospitals must also pursue the often conflicting objective of providing patient care. Originally there was less conflict between patient care and research and teaching. Many seeking care in a teaching hospital were charity patients, who expressed no strenuous objection to being used for research or teaching. With the growth of health insurance and the development of Medicare and Medicaid, the percentage of charity patients has dropped precipitously. At the same time there have been growing demands for the elimination of distinctions in the care provided patients in various financial categories. Thus all patients in a teaching hospital may now be used for teaching or research, but greater care must be exercised to protect the privacy of patients, grown less pliant, and to ensure first class care for all categories of patients. Some hospitals, concerned about preserving the quality of their patient care, are leery about allowing

Exhibit IV-8

APPROVALS AND AFFILIATIONS FOR TOTAL A.H.A.-REGISTERED HOSPITALS: SELECTED YEARS 1960-1973

Approval/Affiliation	1960		1965		1970		
	Number	Percent	Number	Percent	Number	Percent	Nu
Total A.H.A.-Registered Hospitals	6,876	-	7,123	-	7,123	-	7,
Members Council of Teaching Hospitals	NA	-	NA	-	400	5.6	
Medical School Affiliation[a]	387	5.6	471	6.6	630	8.8	
Residency[b]	1,251	18.2	1,208	16.9	1,215	17.0	1,
Internship[c]	852	12.4	770	10.8	790	11.1	
Professional Nursing School[d]	939	13.6	756	10.6	643	9.0	

Source: American Hospital Association, Hospitals, Journal of the American Hospital Associati
Issues, 1961, 1966, 1971; also American Hospital Association, Hospital Statistics:
(Chicago, Ill.: American Hospital Association, 1974), p. 196.

Notes: - = Not Applicable.

[a] Medical school affiliations reported by American Medical Association.

[b] Residency approved by the American Medical Association.

[c] Internship approved by the American Medical Association.

[d] Hospital-controlled professional nursing school, reported by National League for Nursing.

Exhibit IV-8

APPROVALS AND AFFILIATIONS FOR TOTAL A.H.A.-REGISTERED HOSPITALS: SELECTED YEARS 1960-1973

/Affiliation	1960		1965		1970		1973	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
egistered Hospitals	6,876	-	7,123	-	7,123	-	7,123	-
ncil of Teaching s	NA	-	NA	-	400	5.6	392	5.5
ol Affiliation[a]	387	5.6	471	6.6	630	8.8	866	12.2
	1,251	18.2	1,208	16.9	1,215	17.0	1,174	16.5
	852	12.4	770	10.8	790	11.1	737	10.3
Nursing School[d]	939	13.6	756	10.6	643	9.0	490	6.9

can Hospital Association, Hospitals, Journal of the American Hospital Association, Guide s, 1961, 1966, 1971; also American Hospital Association, Hospital Statistics: 1974 Edition go, Ill.: American Hospital Association, 1974), p. 196.

Applicable.

affiliations reported by American Medical Association.

roved by the American Medical Association.

roved by the American Medical Association.

rolled professional nursing school, reported by National League for Nursing.

the medical school too big a role in the hospital's administration lest research and teaching be given too high a priority; yet full-scale affiliation with a medical school gives the school an important voice in the selection of the hospital's staff and, through the staff, in determining the hospital's priorities.

Another troublesome issue for teaching hospitals is the level of care they should provide. The full-scale teaching hospitals, with their highly specialized staffs and facilities, are best equipped to provide tertiary care to patients referred to them because of the complexity of their maladies. But other patients in need of only secondary care also come to the teaching hospitals, perhaps because their personal doctor is affiliated with the hospital and perhaps also because they seek the éclat of being treated in a prestigious teaching hospital. Teaching hospitals in large urban centers are, in addition, expected to provide primary care to meet the medical needs of their surrounding communities. Community pressure is put on such teaching hospitals to provide primary outpatient services and perhaps to sponsor neighborhood health centers. The elaborately equipped teaching hospital thus finds itself performing appendectomies and giving measles shots. The net result is uneconomic use of the specialized facilities and skills of a teaching hospital and often not entirely satisfactory provision of primary care because the hospital is geared to more specialized care.

Full-scale teaching hospitals must thus meet the demands of medical schools for high quality teaching and research, the demands of their immediate communities for good primary care, the demand of the larger community for secondary care in a prestigious institution, and the needs of patients from a wide geographic area for treatment of unusually complex maladies.

They also are increasingly expected to play a role in serving community hospitals with fewer specialized facilities and staffs. Teaching hospitals receive patients referred to them from community hospitals, and, as indicated earlier, pressure is growing for more formalized referral arrangements between community hospitals and teaching hospitals. Teaching hospitals sometimes provide continuing education programs for the staff of nearby community hospitals. Sometimes arrangements are made for the bigger teaching hospitals to provide consulting services for distant hospitals with limited facilities or staff:

Telemonitoring systems may be set up to enable specialists in the teaching hospital to read the results of tests given in the distant institution and to give advice on proper treatment. The government's Regional Medical Program in the late 1960's was designed to foster affiliations of these various kinds between teaching hospitals and community hospitals. (See Chapter II.)

The community hospitals, however, sometimes resent the power, prestige, and wealth of the big teaching hospitals, and they are not always eager to refer patients to the tertiary care facilities. The community hospitals also are increasingly offering serious competition to the full-scale teaching hospitals, for more and more specialists are affiliated with community hospitals, and more and more specialized equipment has been installed in them. Following the movement of the wealthier segments of the population, doctors have flocked to the suburbs, and the doctors in turn have stimulated the expansion of the suburban hospitals and pushed them into adding facilities to provide a suitable workshop for the specialized care which physicians increasingly aspire to offer.

Growing numbers of community hospitals have also become affiliated with medical schools at least in some limited fashion. While only 369 hospitals had some sort of affiliation with a medical school in 1965-66, this number had grown to 1,136 by 1974-75.[1] This reflects both the higher quality of care being provided in community hospitals and also the recognition by medical schools that students can benefit from clinical experience in a hospital that does NOT focus on tertiary care. After all, most of the care these students will later be providing will be care for the simpler ailments that tend to get neglected in the tertiary care facilities.

As the various government programs fostering research and hospital construction enabled teaching hospitals to move into increasingly sophisticated levels of care, the community hospitals followed eagerly in the wake of their teaching rivals, acquiring medical school affiliations and adding specialized equipment that a few years earlier had been available only in the big tertiary care institutions. The distinction between secondary and tertiary care and between teaching and community hospitals tended to blur during the health system's boom years. But the boom years are now coming to an end. Growing government efforts to curb health care costs may push our system into a clearer separation of secondary and tertiary care and sharper distinctions between community and teaching hospitals. Each type of hospital may need to develop a more precise definition of its particular role.

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[1] Anne Crowley, ed., "Medical Education in the United States, 1973-74," Journal of the American Medical Association, Supplement January 1975, p. 48.

Both full-scale teaching hospitals and a good number of community hospitals serve as the training ground for residents and interns already equipped with an MD. Graduate medical education (for interns and residents) is provided in many more hospitals than is undergraduate medical education (for medical students). In 1973 there were 1,174 hospitals with residency programs and 737 with internship programs. (See Exhibit IV-8.) Some hospitals with residency and internship programs are not affiliated with a medical school, but, of the hospitals with graduate medical programs, the percentage without medical school affiliations dropped from 73% in 1965-66 to 32% in 1974-75.[1] Medical schools are playing a bigger role in supervising graduate medical education, and many feel that this trend should be encouraged to ensure the quality of residency training programs.

Although the total number of internship and residency positions offered has increased 33% in the last ten years, the number of hospitals with such programs has been declining. This is due, at least in part, to the high cost of such programs as the salaries of residents and interns have climbed. The average salary paid a resident shot from $3,989 in 1964-65 to $11,359 in 1973-74.[2] Not only have residency programs grown more costly, but third parties (Medicare, Blue Cross) are increasingly insisting that they will pay only for patient care provided by residents but will not pay for the teaching and research costs of residency programs. At present, direct charges for hospital services pay 85% of house staff costs, according to a survey made by the

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[1] *Ibid.*

[2] *Ibid.*, p. 44.

Association of American Medical Colleges.[1] The Michigan Blue Shield has gone further and is taking steps that could prevent reimbursement even for patient care provided by interns and residents, though allowing reimbursement for services provided by attending physicians.[2]

However, studies of how residents spend their time have shown that they generally devote at least 40 hours a week to patient care. A February 1966 study conducted at the Yale-New Haven Hospital, for example, showed that residents on the average devoted 58.8 hours a week to patient care alone.[3] If residents are devoting at least 40 hours a week to patient care, the additional hours residents devote to educating either themselves or medical students can be considered hours which are contributed by the resident on an unpaid basis. A 1971 study done at the Hartford Hospital indicated that the residency program was actually saving the hospital money, for, if the program were eliminated, the additional staff required to do the patient care done by residents would cost more than the program.[4]

The influence of medical schools in the U.S. health care system has grown pervasive since the 1910 Flexner Report, which led to the elimination of many small medical schools of poor quality and promoted a more scientific approach to medical teaching. Since World War II, financed both by research grants and direct institutional grants, medical schools have grown in size, number, and full-time faculty. (See Chapter II.) Armed with the training and values instilled in the schools, doctors go forth to man the health care system and to practice what their mentors have been preaching. An increasing number of hospitals -- even Veterans Administration hospitals -- are affiliated in some fashion with a medical school. Pressure is growing for all residency and internship programs to be under the supervision of a medical school. Hospitals not affiliated with a medical school may have some sort of relationship with a teaching hospital that does have such an affiliation; the teaching hospital, for example, may provide continuing education to the staff of the community hospital. The discoveries developed through medical school research generally spread quite rapidly through the system, and even small hospitals are eager to add equipment to apply the new techniques.

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[1] Robert Chase, "Who Should Pay for Graduate Medical Education," speech.

[2] Jeoffrey Stross, "A Statewide Approach to Graduate Medical Education," New England Journal of Medicine, October 3, 1974, pp. 702-703.

[3] Augustus Carroll, Program Cost Estimating in a Teaching Hospital (Washington, D.C.: Association of American Medical Colleges, 1967).

[4] John Freyman and John Springer, "Cost of Hospital-Based Education," Hospitals, March 1, 1973.

The spreading influence of the medical schools has dramatically improved the quality of health care in this country. But it has had its drawbacks, too. In the first place, the research grants pouring into the medical schools tended to cause an emphasis on research and a concomitant neglect of teaching. Some of the schools' departments grew more rapidly than others, not because of any conscious choice of priorities but because of selected departments' success in obtaining grants. "The medical school was less and less able to function as an institutional entity collectively determining its own priorities and maintaining a balance between its objectives and programs on the basis of a unified sense of purpose. Rather, it began to resemble a loose federation of independent principalities, each concentrating increasingly upon its own specialty field, with decreasing emphasis upon its appropriate role in a total program of balanced, basic educational preparation of medical students."[1]

The medical schools placed ever greater emphasis on medicine using expensive technology and showed little interest in comprehensive care, community medicine, or the development of more efficient methods of delivering care. More of the faculty worked on a full-time basis and thus lost touch with the exigencies of day-to-day practice: Their work focused on the tertiary care emphasized in teaching hospitals. The priorities in the medical schools were quickly reflected in the health care system as a whole.

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[1] Cecil Sheps and Conrad Seipp, "The Medical School, Its Products and Its Problems," *The Annals of the American Academy of Political and Social Science*, January 1972, p. 41.

The situation now is changing. Research grants are tapering off. The government is using its financial support of medical schools to push them into greater emphasis on primary care.[1] Medical schools, through their teaching hospitals, are more involved in outpatient care, either in the hospital or in an affiliated neighborhood health center. The medical schools' greater association with community hospitals may perhaps make the faculty more aware of the population's need for the simpler levels of care. Medical schools are being encouraged to set up training programs for "family medicine," emphasizing basic, comprehensive care for an entire family.

But change comes slowly. Faculty accustomed to working in high technology medicine don't suddenly become enthusiastic about improving the organization of neighborhood health centers, and the faculty serve not only as teachers but as role models for medical students. A survey of UCLA medical students found that 80% of entering students were interested in primary care medicine, but, after four years in medical school, only 30% actually entered primary care residencies.[2] Another problem is that, because admission to medical schools has become highly selective, the students under the tutelage of the faculty tend to be "grinds," good potential candidates for research labs, not well rounded students likely to enjoy the extensive dealing with people that family medicine requires. As Dr. Daniel Funkinstein of Harvard Medical School has pointed out, "If you're the kind of guy who goes to college and gets into lots of extracurricular activites, gets B's, and likes to work with people, you're not getting into medical school any more...The kind of physician people dream about is not getting into medical school any more."[3] And the growing complexity of medicine makes it difficult for medical schools to turn out generalists: With the proliferation of medical knowledge, it is easier to master one corner of the field than to gain a general understanding of the whole vast area. One must also not overlook Americans' passion for high technology in all areas, not just in health care. The expensive clinical technology has glamour for patients as well as for the faculty and graduates of medical schools, and, with their hospital bills paid by insurance, patients want all the benefits the expensive clinical technology seems to offer. It will take more than government decrees and perorations on the importance of primary care to shift the focus of medical schools and the resultant focus of the U.S. health care system.

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[1] See Chapter II.

[2] "There Are Plenty of Incentives Against Practicing Primary Care," American Medical News, January 27, 1975, quoted in Medical Care Review, February 1975, pp. 141-142.

[3] Quoted in David Blumenthal and David Fallows, "Health: The Care We Want and Need," The Washington Monthly, October 1973, p. 14.

HOSPITAL UTILIZATION

Admissions to all hospitals in the United States totaled 34,352,000 in 1973, 86% above the number in 1950. This rise is more than double the 38% increase in population between 1950 and 1973. Admissions just to non-federal, short-term hospitals climbed 91% over the same 23 years, with the greatest growth occurring, interestingly enough, in the late 1950's when Hill-Burton was in full swing but Medicare was still just a dream of reformers. (See Exhibit IV-9.) The burgeoning of admissions before Medicare was apparently due to a combination of the changing medical technology, the growth of hospital insurance, and the increased availability of hospital beds.

While admissions have risen continuously, the average length of stay in all hospitals (long-term as well as short-term) plummeted from 24.7 days in 1950 to 12.6 days in 1973. This is primarily a reflection of the fact that patients requiring long-term care are increasingly being transferred out of hospitals and into outpatient care or into nursing homes or extended care facilities. In the same period the average length of stay in short-term, non-federal hospitals declined only slightly -- from 8.1 to 7.8 days. The length of stay in these hospitals rose after Medicare was inaugurated and more elderly people began getting hospital care, but since 1969 the length of stay has been slowly falling, presumably because of greater utilization controls.

UTILIZATION OF HOSPITAL FACILITIES: SELECTED YEARS 1950-1973

Type of Hospital/Year	Number of Hospital Beds (000)	Average Daily Census (000)	Adjusted[a] Average Daily Census (000)	Occupancy (%)	Admissions (000)
All U.S. Hospitals					
1950	1,456	1,253	NA	86.0	18,483
1955	1,604	1,363	NA	85.0	21,073
1960	1,658	1,402	NA	84.6	25,027
1965	1,704	1,403	NA	82.3	28,812
1970	1,616	1,298	NA	80.3	31,759
1973	1,535	1,189	NA	77.5	34,352
Non-federal, Short-term Hospitals					
1950	505	372	NA	73.7	16,663
1955	568	407	NA	71.5	19,100
1960	639	477	NA	74.7	22,970
1965	741	563	620	76.0	26,463
1970	848	662	727	78.0	29,252
1973	903	681	768	75.4	31,761

Source: American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: American H Association, 1974), pp. 19, 21.

Notes: NA = Not Available.

[a] Adjusted to take account of outpatient visits.

[b] Average length of stay calculated by multiplying number of beds x occupancy rate x 365 days, and divid by admissions.

UTILIZATION OF HOSPITAL FACILITIES: SELECTED YEARS 1950-1973

Number of Hospital Beds (000)	Average Daily Census (000)	Adjusted[a] Average Daily Census (000)	Occupancy (%)	Admissions (000)	Average Length of Stay (days)
1,456	1,253	NA	86.0	18,483	24.7[b]
1,604	1,363	NA	85.0	21,073	23.6[b]
1,658	1,402	NA	84.6	25,027	20.4[b]
1,704	1,403	NA	82.3	28,812	17.8[b]
1,616	1,298	NA	80.3	31,759	14.9[b]
1,535	1,189	NA	77.5	34,352	12.6[b]
505	372	NA	73.7	16,663	8.1
568	407	NA	71.5	19,100	7.8
639	477	NA	74.7	22,970	7.6
741	563	620	76.0	26,463	7.8
848	662	727	78.0	29,252	8.2
903	681	768	75.4	31,761	7.8

al Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: American Hospital
74), pp. 19, 21.

ble.

t of outpatient visits.

calculated by multiplying number of beds x occupancy rate x 365 days, and dividing

The average length of stay varies considerably in different parts of the country. For example, in the Pacific States the average length of stay in non-federal, short-term hospitals is 6.5 days, while in the Middle Atlantic States it is 9.3 days.[1]

Since the rise in hospital admissions has been less than the decline in the average length of stay, the number of patient days in all hospitals declined from 3,011 per 1,000 population in 1950 to 2,843 in 1960 to 2,068 in 1973, a decrease of 31% in the last 23 years. However, if only non-federal, short-term hospitals are considered, the number of patient days per 1,000 civilian population rose from 900 in 1950 to 977 in 1960 and 1,194 in 1973, an increase of 33% in the last 23 years. In short, while the demand for long-term hospital beds is dropping, the demand for non-federal, short-term hospital beds has risen sharply. A dramatic jump occurred in the demand for short-term hospital beds after Medicare and Medicaid were inaugurated, but the growth in demand is now even slower than it was before Medicare because the continuing rise in admissions is being compensated for by the declining length of stay.

Since the bed capacity of all United States hospitals grew faster than their average daily census, their occupancy rate fell steadily from 86% in 1950 to 77.5% in 1973. This decline occurred primarily because of sharp drops in the occupancy rates of non-federal psychiatric hospitals and non-federal tuberculosis hospitals. Occupancy rates vary considerably between different types of hospitals. In 1973 the occupancy rate for federal hospitals was 79.0%; that for non-federal psychiatric hospitals was 61.9%; for other non-federal, long-term hospitals it was 82.1%; and for all non-federal, short-term hospitals it was 75.4%. The rate for these latter hospitals is brought down by the fact that the occupancy rate for state and local governmental short-term hospitals is only 70.6% and that for proprietary short-term hospitals is 68.3%. Non-governmental, non-profit, short-term hospitals had an occupancy rate of 77.8% in 1973.[1] The non-profit hospitals enjoyed rising occupancy rates until 1969, when increasing utilization controls began to push down both the length of stay and the occupancy rates.

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[1] American Hospital Association, Hospital Statistics, 1974..., op. cit., pp. 38 and 52.

The size of a hospital affects its occupancy rate. Among non-federal, short-term hospitals, those with 6 to 24 beds had an occupancy rate of only 49.8% in 1973, those with 50 to 99 beds had a 66.2% rate; those with 200 to 299 beds had a 77.4% rate; and those with 400 to 499 beds had an 81.3% rate. (See Exhibit IV-10.) Thus, the larger a hospital is, the higher generally is its occupancy rate. However, size seems to have more impact on occupancy rate among small hospitals than among those with 300 or more beds.

Occupancy in all hospitals varies greatly from day to day and season to season, and small hospitals in particular cannot have anything approaching a 100% average occupancy rate if they are to be in a position to meet the peaks of demand that occur periodically. However, occupancy rates would be raised if hospitals did not tend to empty out on weekends when few operations and tests are scheduled. Hospital facilities could be used more efficiently if full services were provided seven days a week. One hospital which implemented a full seven day operation significantly lowered its average length of stay when patients were no longer kept needlessly in the hospital over a weekend waiting for tests.[2]

Although admissions and patient days in non-federal, short-term hospitals have mounted steadily, outpatient visits have escalated far more rapidly. While admissions increased only 20% between 1965 and 1973, total outpatient visits nearly doubled. (See Exhibit IV-11.)

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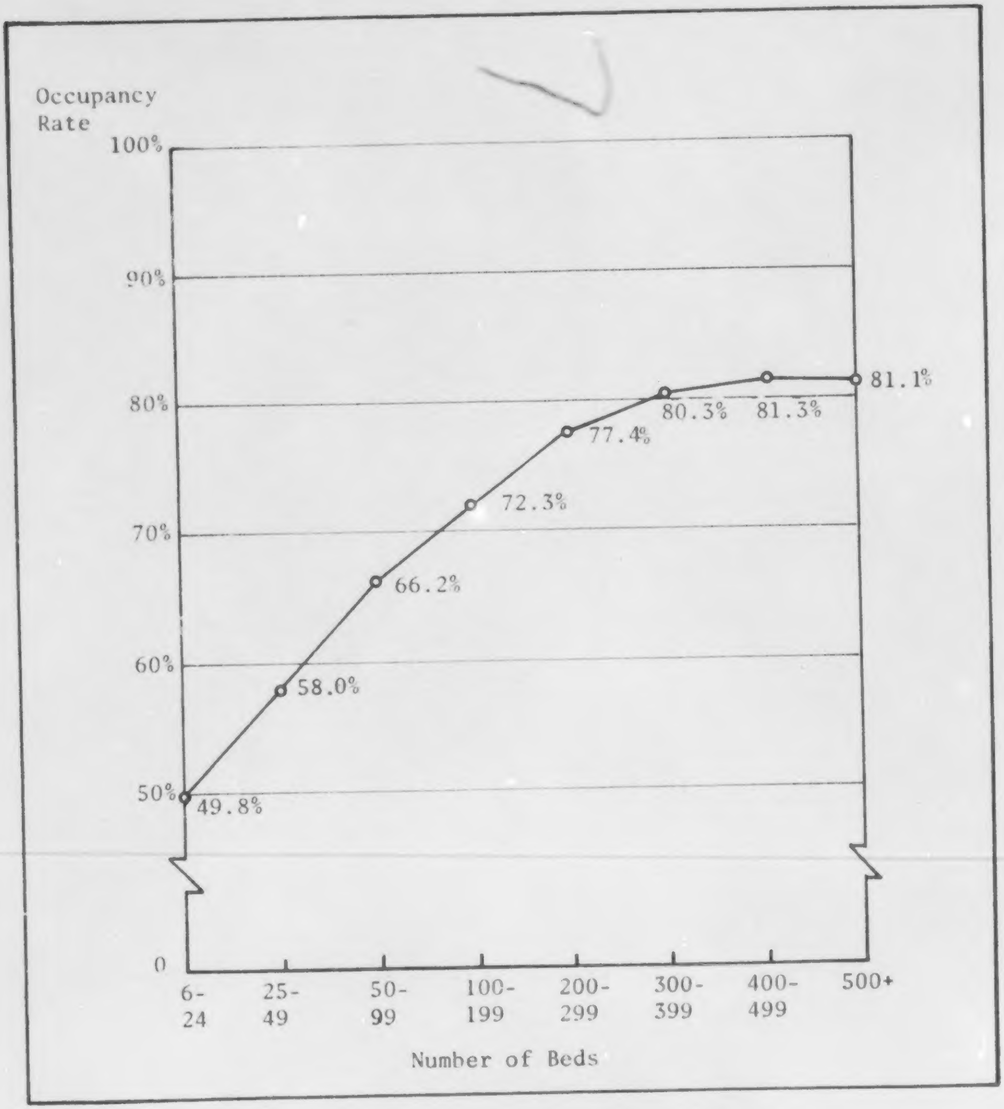
[1] American Hospital Association, Hospital Statistics: 1974..., op.cit., pp. 19-21.

[2] See, for example, Derek Bush, "Small Hospital Implements 7-day Operation," Hospitals, October 16, 1973, pp. 45-47.

Exhibit IV-10

OCCUPANCY RATE BY SIZE OF HOSPITAL: 1973

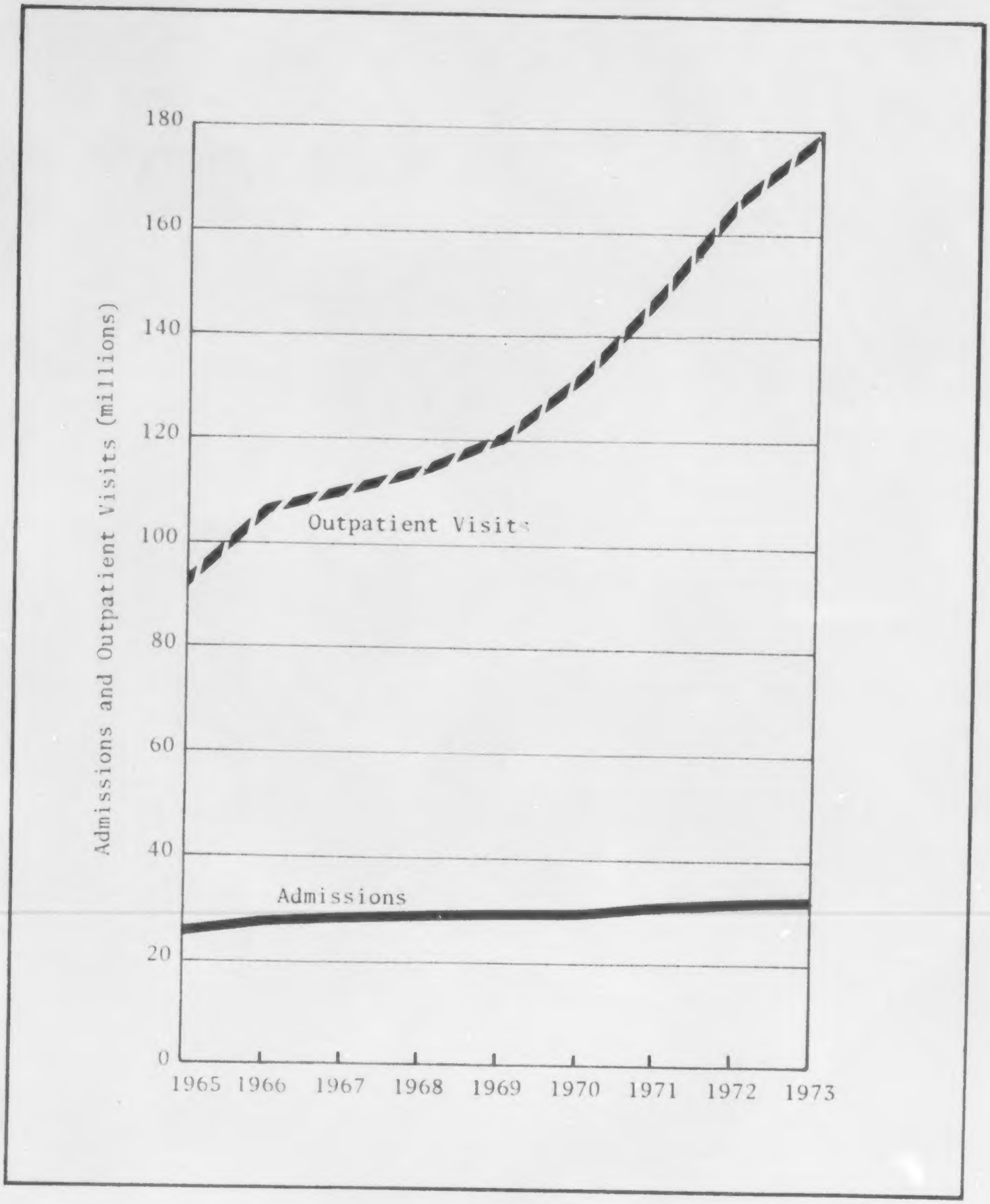
(Non-federal, Short-term Hospitals)



Source: American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: 1974), p. 26.

HOSPITAL ADMISSIONS AND OUTPATIENT VISITS: 1965-1973

(Non-federal, Short-term Hospitals)



Source: American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: 1974), p. 20.

SPECIALIZED SERVICES AND ECONOMIES OF SCALE

An increasing number of hospitals are offering more specialized services to both their inpatients and their outpatients. In 1950 only 37% of all hospitals had blood banks; by 1973 the percentage had grown to 59%. The percent of hospitals offering electroencephalography rose from 12% to 40% over the same period of time. Radioisotope facilities were not reported in 1950, but by 1973, 42% of all hospitals had diagnostic radioisotope facilities and 21% had therapeutic facilities. An even larger proportion of non-federal, short-term hospitals report these and other specialized services, as can be seen in Exhibit IV-12.

Many of our larger hospitals also provide super-specialized facilities that are not even covered by the American Hospital Association's annual survey. A few hospitals, for example, have hyperbaric units which force oxygen into the blood and tissues, killing gas-gangrene bacilli and other infections; a few have stoma rehabilitation clinics to help patients learn to live with the results of ileostomies, colostomies, or ileal bladders. Such facilities generally appear first in large teaching hospitals, and then gradually spread to other institutions.

The facilities which a hospital offers vary almost directly with the size of the hospital: The larger the hospital, the more sophisticated services it offers.[1] (See Exhibit IV-13.) Virtually all non-federal, short-term hospitals with 500 or more beds have post-operative recovery rooms, intensive care units, pharmacies with full-time registered pharmacists, diagnostic radioisotope facilities, histopathology laboratories, electroencephalography, inhalation therapy, physical therapy and emergency departments. An average of only 13.2% of the hospitals with 6 to 24 beds and 50.5% of those with 50 to 99 beds offer these services.

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[1] The only exceptions occur with facilities which larger hospitals do not have because they offer more elaborate services. For example, few large hospitals have a part-time pharmacist, but they usually have a full-time one.

Exhibit IV-12

TREND IN HOSPITAL FACILITIES AND SERVICES: SELECTED YEARS 1950-1973

(Percent of Non-federal, Short-term Hospitals Having Selected Facilities)

Facility	1950	1955	1960	1965	1970	1973
Intensive Care Unit	NA	NA	10.2	26.7	48.8	62.3
Intensive Cardiac Care Unit	NA	NA	NA	NA	42.1	35.0
Open-heart Surgery Facility	NA	NA	NA	NA	7.1	8.5
Postoperative Recovery Room	NA	28.9	51.5	69.0	75.2	80.5
X-Ray Therapy	44.9	35.9	35.1	37.1	33.1	33.4
Radium Therapy	NA	NA	NA	32.0	27.5	26.5
Radioisotopic Facility	NA	11.5	21.8	30.1	36.1	(a)
Histopathology Laboratory	NA	NA	NA	NA	48.2	49.8
Clinical Laboratory	88.0	93.3	95.5	97.6	NA	NA
Pathology Laboratory	NA	NA	49.4	56.6	NA	[illegible]
Organ Bank	NA	NA	NA	NA	3.1	[illegible]
Blood Bank	53.7	61.0	56.0	61.4	60.4	64.8
Electroencephalography	11.9	11.8	14.0	27.7	33.0	38.8
Inhalation Therapy Department	NA	NA	NA	NA	56.9	70.7
Renal Dialysis - Inpatient	NA	NA	NA	NA	10.3	11.7
Renal Dialysis - Outpatient	NA	NA	NA	NA	6.8	10.1
Psychiatric Services - Inpatient	NA	NA	NA	13.3	14.6	16.1

Source: American Hospital Association, Hospitals, Journal of the American Hospital Association, Guide Issues, August 1951, 1956, 1961, 1966, 1970, 1971; also American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: American Hospital Association, 1974), pp. 202-206.

Note: NA = Not Available. Not included in A.H.A.'s survey of hospitals.

[a] Diagnostic Radioisotope Facility, 46.9%; Therapeutic Radioisotope Facility, 24.1%.

Exhibit IV-13

RELATIONSHIP OF HOSPITAL SIZE TO FACILITIES AND TEACHING ACCREDITATIONS: 1973

(Non-federal, Short-term Hospitals)

	Hospital Size (Beds)							
	6 - 24	25 - 49	50 - 99	100 - 199	200 - 299	300 - 399	400 - 499	500 + over
Expense/Bed	$16,981	$18,123	$21,222	$26,576	$31,857	$34,439	$36,359	$41,504
Number of Hospitals Reporting	260	1,038	1,403	1,236	634	368	211	262
Percentage of Hospitals Having These Facilities								
Post-Operative Recovery Room	16.9%	48.0%	83.1%	96.0%	98.9%	100.0%	99.5%	99.2%
Intensive Care Unit	10.0	24.5	47.3	80.8	94.8	98.4	98.6	98.9
Intensive Cardiac Care Unit	5.0	16.5	21.6	31.7	54.7	69.3	84.8	89.3
Open Heart Surgery	0	0	0.6	3.2	9.3	22.3	43.6	67.9
Pharmacy with FT Registered Pharmacist	5.0	12.5	44.5	87.8	98.4	100.0	100.0	100.0
Pharmacy with PT Registered Pharmacist	41.5	54.9	43.4	10.1	0.9	0	0	0
X-Ray Therapy	3.8	6.3	13.0	36.5	59.1	82.1	86.3	92.0
Cobalt Therapy	0.4	0.4	1.1	8.5	21.0	44.8	61.6	71.4
Radium Therapy	0.4	0.7	5.6	25.7	52.4	76.9	85.8	89.3
Radioisotope Facility - Diagnostic	2.3	9.2	23.2	58.3	88.8	97.0	99.5	98.9
Radioisotope Facility - Therapeutic	0.4	0.6	3.6	19.9	48.7	75.3	85.3	90.1
Histopathology Lab	3.5	8.1	26.1	68.8	90.4	95.9	98.1	96.9
Organ Bank	0	0.2	0.3	1.1	3.6	8.2	10.0	21.8
Blood Bank	18.8	40.1	56.7	76.6	83.0	90.2	93.8	93.1
Electroencephalography	1.5	5.7	14.5	42.7	78.1	94.6	97.6	98.1
Inhalation Therapy	10.0	33.4	64.4	88.7	97.6	98.6	100.0	98.9
Premature Nursery	5.4	12.5	25.4	40.7	63.7	75.5	84.4	88.5
Self Care Unit	0.4	0.4	0.7	2.5	6.6	10.3	14.7	14.9
Extended Care Unit	3.5	6.1	14.5	14.6	12.3	12.5	11.8	14.5
Inpatient Renal Dialysis	1.2	0.3	1.9	7.0	17.4	32.1	46.9	72.1
Outpatient Renal Dialysis	1.2	1.0	1.9	6.5	15.9	23.1	36.5	61.5
Burn Care Unit	0	0.5	0.4	1.1	2.8	6.0	10.9	21.8
Physical Therapy	10.4	35.0	66.4	87.9	95.4	98.1	100.0	98.5
Occupational Therapy	1.9	2.1	5.9	14.6	27.4	45.9	58.3	78.2
Rehabilitation Inpatient Unit	0	0.2	0.2	3.0	6.5	14.9	18.5	38.5
Rehabilitation Outpatient Unit	0	1.1	1.5	3.9	10.6	18.2	25.6	47.3
Psychiatric Inpatient Unit	0	0.7	2.4	11.2	27.4	47.8	62.1	80.9
Psychiatric Outpatient Unit	2.7	3.4	3.5	7.0	17.5	32.9	37.0	53.4
Psychiatric Partial Hospitalization	0.8	1.6	2.2	6.5	11.5	19.3	28.9	35.5
Psychiatric Emergency Unit	1.5	4.2	5.3	15.5	29.3	42.7	51.7	68.3
Psychiatric Foster and/or Home Care	0	0	0.3	0.6	0.9	2.2	2.8	3.4
Psychiatric Consultation and Education	2.7	2.0	3.7	8.4	15.1	23.6	34.6	45.4
Clinical Psychologist Services	5.0	4.1	5.3	10.4	18.0	30.4	37.4	53.1
Social Work Department	10.0	10.3	30.1	58.1	74.6	86.1	91.0	95.8
Family Planning	2.7	1.7	1.5	3.6	10.7	17.1	24.2	39.3
Home Care Department	0	1.3	3.0	6.4	11.5	13.6	15.2	20.6
Hospital Auxiliary	38.8	54.0	68.1	80.1	85.6	91.6	91.9	88.2
Organized Outpatient Department	21.2	13.7	12.7	20.3	36.4	55.4	67.3	84.4
Emergency Department	58.8	77.0	84.7	92.1	95.6	98.1	97.6	99.6
Genetic Counseling Service	0	0.4	0.6	1.8	4.1	5.7	13.3	29.8
Inpatient Abortion	3.5	7.6	11.4	19.6	26.7	31.3	39.3	48.9
Outpatient Abortion	0.4	1.9	4.2	7.4	13.7	15.8	22.3	30.9
Dental Services	8.5	11.4	21.1	35.6	44.0	56.5	63.5	68.3
Podiatrist Services	2.7	5.2	9.5	12.8	15.0	24.5	25.1	32.1
Speech Therapist Services	1.9	2.6	6.6	18.3	30.0	42.7	54.0	70.2
Volunteer Services Department	4.6	8.2	19.1	40.6	71.5	80.7	86.7	86.3
Percentage of Hospitals Having These Teaching Accreditations								
Cancer Program	0.3	0.1	1.6	7.3	19.6	37.9	43.7	62.8
Residency	0	0.4	1.8	7.3	23.2	50.3	72.8	91.8
Internship	0	0.1	0.1	2.1	16.3	42.7	63.8	84.8
Medical School Affiliation	0	0.2	1.3	4.5	15.1	38.2	58.2	79.9
Professional Nursing School	0.3	0.2	0.4	3.8	15.7	32.3	35.2	45.4
Member of Council of Teaching Hospitals	0	0	0.1	1.0	4.2	13.4	31.5	57.2

Source: American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: American Hospital Association, 1974), pp. 202-208, 26-27, 196.

The size of a hospital also affects the number of teaching programs it offers. The percentage of hospitals with membership in the Council of Teaching Hospitals, the percentage with a medical school affiliation, and the percentage with nursing schools and residency and internship programs rise markedly as the size of the hospital increases.

Statistically, as hospitals increase in size, everything goes up: the occupancy rate, average length of stay, the number of specialized services offered, the number of teaching accreditations, personnel per bed, expenses per bed, and assets per bed. Obviously these factors are interrelated. Patients are attracted to hospitals with many facilities. It is not economically feasible for smaller hospitals to have as much specialized equipment as larger ones. Patients with more complex cases tend to be referred to better equipped hospitals where they are provided more elaborate treatment, requiring a longer stay. Special facilities increase the assets per bed and require additional personnel. Teaching hospitals have residents on duty 24 hours a day and have access to faculty with the specialized skills required to treat more difficult cases. Teaching programs, more elaborate equipment, and extra personnel push up costs.

Some studies have indicated that teaching programs of themselves tend to increase the average length of stay. In 1969, when Slee and Amherst studied 209 teaching hospitals and 326 non-teaching hospitals and made some effort to correct for differences in case mix, they "estimated the 'teaching effect' (the extra length of stay attributable to teaching) to stand at 10 percent on a national average. This teaching effect varies with regions of the country and with hospital size."[1] But teaching programs, while lengthening stays, also provide better care. Comparison of fatality rates for particular conditions and reviews of medical records have indicated generally superior care in teaching institutions, at least in the early 1960's.[2]

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[1] Duncan Neuhauser and Fernand Turcotte, "Costs and Quality of Care in Different Types of Hospitals," The Annals of the American Academy of Political and Social Science, January 1972, pp. 55-56.

[2] Ibid., p. 56.

Exhibit IV-14 shows how just about every statistic rises as hospitals increase in size. Plant and equipment assets per bed rise sharply for hospitals with less than 200 beds; for larger hospitals differences in the plant and equipment assets per bed are smaller, despite the fact that very large hospitals have significantly more special facilities than do the medium size institutions. (See Exhibit IV-13.) Presumably plant and equipment assets per bed do not rise so rapidly at the upper end of the size scale because at least some special facilities can serve a large number of patients as readily as a small number. Personnel per bed rises steadily as hospitals increase in size, as do payroll expenses per personnel. The elaborate facilities in larger hospitals not only require more personnel but also more highly skilled and therefore more highly paid personnel. Greater personnel costs in the larger institutions are, of course, also related to the fact that large hospitals tend to be in urban areas where higher salaries can be commanded.

Exhibit IV-15 illustrates the steep rise in expenses per bed as hospitals increase in size. However, because of the low occupancy rates of the smallest hospitals, total expenses per occupied bed are less for hospitals with 25 to 99 beds than for those with 6 to 24 beds. This is true despite the fact that hospitals with the smallest number of beds have markedly fewer facilities than those with more beds. Only in hospitals with 100 or more beds do expenses per occupied bed rise sharply with the size of the hospital. However, between hospitals with 200-299 beds and those with 400-499 beds, expenses per occupied bed (and personnel per bed) rise relatively slowly despite the larger number of facilities available in the institutions with the greater number of beds. This may indicate that is is uneconomic to operate even a simply equipped hospital with less than 50 beds and that, with a well equipped hospital, economies of scale can be obtained in hospitals with 400 or more beds.

Efforts to determine economies of scale in hospital operations have produced conflicting results because of the difficulty of controlling for differences in scope of services and type of patient treated. Reviewing research studies done before 1972, Neuhauser and Turcotte concluded, "There

Exhibit IV-14

ECONOMIC DATA ON HOSPITALS BY SIZE OF HOSPITAL: 1973

(Non-federal, Short-term Hospitals)

Hospital Size	# of Hospitals	# of Beds	# of Admissions	Percent Occupancy	Average Stay	# of Personnel	Personnel Per Bed	Expenses ($000)			Assets ($0	
								Payroll	Other	Total	Plant	Other
Total	5,891	903,324	31,761,135	75.4	7.8	2,149,165	2.38	15,867,173	12,628,523	28,495,696	25,100,700	12,536,4
6- 24	341	6,314	194,538	49.8	5.9	10,461	1.66	58,404	48,817	107,221	100,013	52,3
25- 49	1,239	44,681	1,525,163	58.0	6.2	74,055	1.66	435,664	374,111	809,775	713,756	344,5
50- 99	1,535	110,099	3,787,867	66.2	7.0	202,619	1.84	1,250,876	1,085,602	2,336,478	2,204,385	1,075,4
100-199	1,279	180,350	6,522,461	72.3	7.3	381,845	2.12	2,606,357	2,186,591	4,792,948	4,389,945	2,187,0
200-299	643	155,539	5,795,400	77.4	7.6	373,493	2.40	2,770,284	2,184,713	4,954,997	4,713,269	2,148,6
300-399	372	125,993	4,622,514	80.3	8.0	320,898	2.55	2,436,944	1,902,125	4,339,069	3,987,343	1,852,9
400-499	213	93,371	3,385,406	81.3	8.2	246,647	2.64	1,892,819	1,502,096	3,394,915	3,077,205	1,449,4
500+	269	186,977	5,927,786	81.1	9.3	539,147	2.88	4,415,825	3,344,468	7,760,293	5.914,784	3,425,9

Hospital Size	Payroll Expenses Per Personnel	Payroll Expenses Per Bed	Other Expenses Per Bed	Total Expenses		Assets			Gross Inpatient Revenues Per Patient Day	Net Total Revenues ($000)	Net Total Revenues Per Bed	Excess Over
				Per Bed	Per Personnel	Plant Per Bed	Other Per Bed	Total Per Bed				
Total	$7,383	$17,565	$13,980	$31,545	$13,259	$27,787	$13,878	$41,665	$107.30	$28,592,832	$31,653	0
6- 24	5,585	9,250	7,732	16,982	10,250	15,840	8,286	24,126	$ 69.52	$ 97,667	$15,468	(8
25- 49	5,883	9,751	8,373	18,124	10,935	15,975	7,710	23,685	74.77	770,282	17,240	(4
50- 99	6,174	11,361	9,860	21,221	11,531	20,022	9,768	29,790	82.22	2,331,612	21,177	(0
100-199	6,826	14,452	12,124	26,576	12,552	24,341	12,127	36,468	97.38	4,857,210	26,932	1
200-299	7,417	17,811	14,046	31,857	13,267	30,303	13,814	44,117	108.95	5,041,704	32,414	1
300-399	7,594	19,342	15,097	34,439	13,522	31,647	14,707	46,354	112.40	4,367,655	34,666	0
400-499	7,674	20,272	16,087	36,359	13,764	32,957	15,524	48,481	116,49	3,439,722	36,839	1
500+	8,190	23,617	17,887	41,504	14,394	31,634	18,321	49,957	124.60	7,686,980	41,112	(0

Source: American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: American Hospital Association, 1974), pp. 26-

Exhibit IV-14

ECONOMIC DATA ON HOSPITALS BY SIZE OF HOSPITAL: 1973

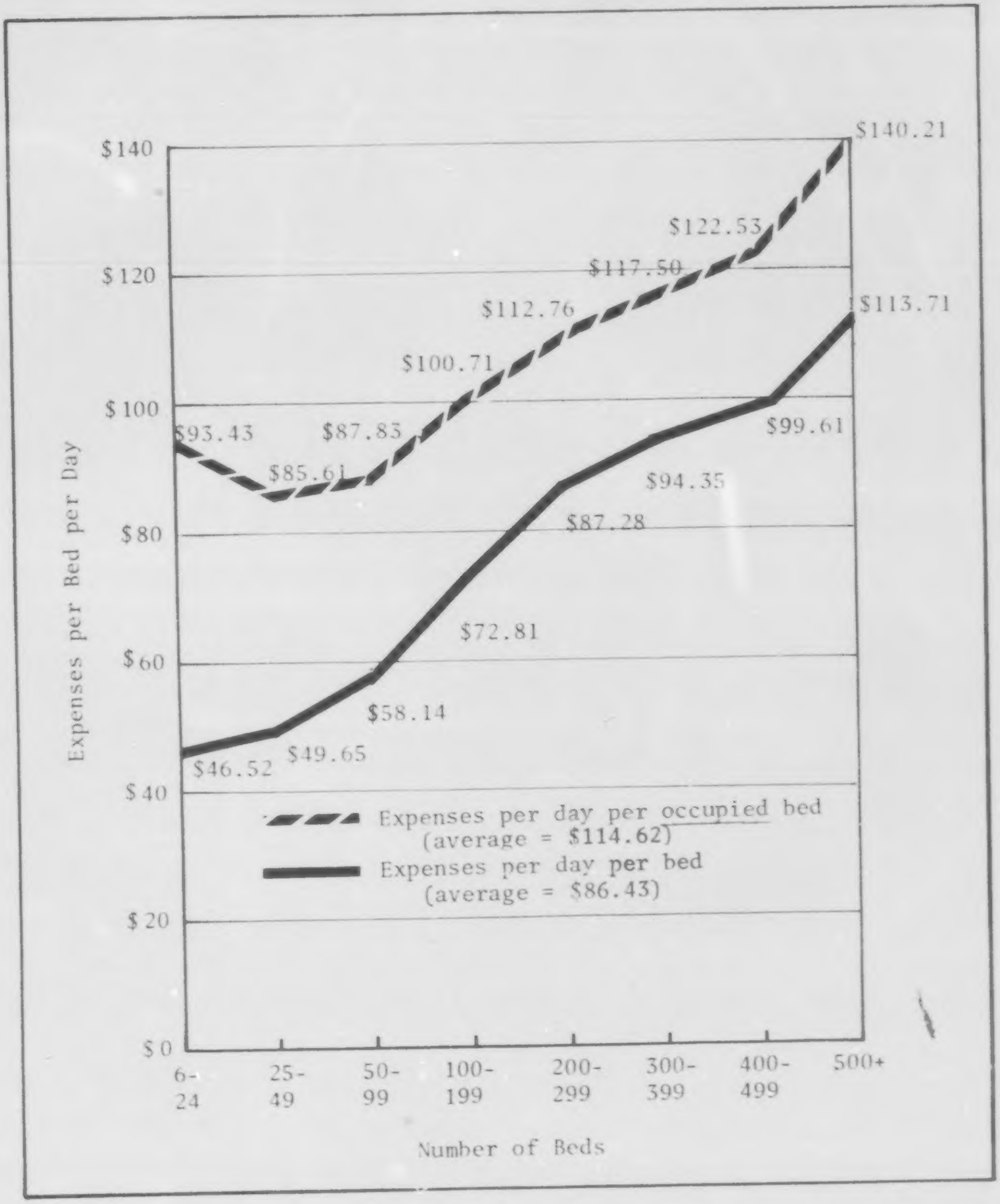
(Non-federal, Short-term Hospitals)

f als	# of Beds	# of Admissions	Percent Occupancy	Average Stay	# of Personnel	Personnel Per Bed	Expenses ($000)			Assets ($000)		
							Payroll	Other	Total	Plant	Other	Total
l	903,324	31,761,135	75.4	7.8	2,149,165	2.38	15,867,173	12,628,523	28,495,696	25,100,700	12,536,406	37,637,106
l	6,314	194,538	49.8	5.9	10,461	1.66	58,404	48,817	107,221	100,013	52,318	152,331
9	44,681	1,525,163	58.0	6.2	74,055	1.66	35,664	374,111	809,775	713,756	344,509	1,058,265
5	110,099	3,787,867	66.2	7.0	202,619	1.84	1,250,876	1,085,602	2,336,478	2,204,385	1,075,406	3,279,791
9	180,350	6,522,461	72.3	7.3	381,845	2.12	2,606,357	2,186,591	4,792,948	4,389,945	2,187,061	6,577,006
3	155,539	5,795,400	77.4	7.6	373,493	2.40	2,770,284	2,184,713	4,954,997	4,713,269	2,148,662	6,861,931
2	125,993	4,622,514	80.3	8.0	320,898	2.55	2,436,944	1,902,125	4,339,069	3,987,343	1,852,967	5,840,310
3	93,371	3,385,406	81.3	8.2	246,647	2.64	1,892,819	1,502,096	3,394,915	3,077,205	1,449,498	4,526,703
9	186,977	5,927,786	81.1	9.3	539,147	2.88	4,415,825	3,344,468	7,760,293	5.914,784	3,425,985	9,340,769

ayroll xpenses Personnel	Payroll Expenses Per Bed	Other Expenses Per Bed	Total Expenses		Assets			Gross Inpatient Revenues Per Patient Day	Net Total Revenues ($000)	Net Total Revenues Per Bed	Excess of Revenues Over Expenses (%)
			Per Bed	Per Personnel	Plant Per Bed	Other Per Bed	Total Per Bed				
7,383	$17,565	$15,980	$31,545	$13,259	$27,787	$13,878	$41,665	$107.30	$28,592,832	$31,653	0.3%
5,585	9,250	7,732	16,982	10,250	15,840	8,286	24,126	$ 69.52	$ 97,667	$15,468	(8.9)%
5,883	9,751	8,373	18,124	10,935	15,975	7,710	23,685	74.77	770,282	17,240	(4.9)
6,174	11,361	9,860	21,221	11,531	20,022	9,768	29,790	82.22	2,331,612	21,177	(0.2)
6,826	14,452	12,124	26,576	12,552	24,341	12,127	36,468	97.38	4,857,210	26,932	1.3
7,417	17,811	14,046	31,857	13,267	30,303	13,814	44,117	108.95	5,041,704	32,414	1.7
7,594	19,342	15,097	34,439	13,522	31,647	14,707	46,354	112.40	4,367,655	34,666	0.7
7,674	20,272	16,087	36,359	13,764	32,957	15,524	48,481	116,49	3,439,722	36,839	1.3
8,190	23,617	17,887	41,504	14,394	31,634	18,321	49,957	124.60	7,686,980	41,112	(0.9)

can Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: American Hospital Association, 1974), pp. 26-27, 198.

TOTAL EXPENSES PER BED PER DAY
BY SIZE OF HOSPITAL: 1973
(Non-federal, Short-term Hospitals)



Source: American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: 1974), pp. 26-27.

is a general trend toward finding that standardized costs are high in the smaller hospitals, decline as size increases, up to a point and then level off for larger hospitals."[1] Berki, however, summarized the results of these studies as showing that "Depending on the methodologies and definitions used, economies of scale exist, may exist, may not exist, or do not exist, but in any case, according to theory, they ought to exist."[2]

HOSPITAL PERSONNEL

In 1973 there was a total of almost 2.9 million full-time equivalent personnel[3] employed in all hospitals in the United States. Of these, about 16% were Registered Nurses, 7.8% were Licensed Practical Nurses, 1.7% were physicians and dentists, 2.2% were interns and residents, and the remainder were other types of personnel such as technicians and technologists, therapists, pharmacists, aides and orderlies, dietitians, and the like.[4] Statistics on categories of professional and technical personnel employed in all hospitals in 1966 and 1969 are given in Exhibit IV-16. These statistics reflect the new medical technology, for between 1966 and 1969 there were striking increases in the number of hospital personnel in such categories as inhalation therapists and aides, electrocardiographic technicians, cytotechnologists-technicians, and histologic technicians and aides. Another trend indicated by the statistics is the growing use of lesser skilled "aides" and "assistants" to increase the productivity of more highly trained personnel such as occupational therapists, physical therapists, social workers, pharmacists, and radiology technologists.

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[1] Neuhauser and Turcotte, op. cit., p. 55.

[2] Sylvester Berki, Hospital Economics (Lexington, Mass.: D.C. Heath, 1972), p. 115.

[3] Full-time equivalent personnel is the sum of full-time personnel plus one-half the number of part-time personnel. These figures include interns, residents and other trainees.

[4] American Hospital Association, Hospital Statistics: 1974..., op. cit., p. 35.

Exhibit IV-16

PROFESSIONAL AND TECHNICAL PERSONNEL IN ALL HOSPITALS: 1966 AND 1969

Category	Number in 1966[a]	Number in 1969	Number/ 100 Beds in 1969[b]
All professional and technical	1,332,100	1,874,200	113.8
Physicians:			
Medical interns and residents	-	55,000	3.3
Other physicians	-	58,200	3.5
Dental services:			
Dental interns and residents		1,600	0.1
Other dentists	-	5,800	0.4
Dental hygienists, licensed	-	500	-
Dental assistants	-	5,300	0.3
Dental laboratory technicians	-	1,400	0.1
Clinical laboratory services:			
Clinical laboratory scientists	-	4,500	0.3
Clinical laboratory technologists[c]	-	44,500	2.7
Cytotechnologists technicians	1,600	3,300	0.2
Histologic technicians & aides	3,900	5,600	0.3
Other clinical laboratory personnel[c]	-	42,800	2.6
Dietary services:			
Dietitians	12,700	12,700	0.8
Dietary technicians	-	18,100	1.1
Medical record services:			
Medical record librarians	6,300	6,400	0.4
Medical record technicians	10,100	6,900	0.4
Medical record clerks	-	33,300	2.0
Nursing services:			
Registered nurses	361,000	461,100	28.0
Practical or vocational nurses, licensed	150,600	205,100	12.5
Nursing aides, orderlies, and attendants	492,000	568,500	34.5
Ward clerks	-	58,000	3.5
Pharmacy			
Pharmacists, licensed	9,400	13,600	0.8
Pharmacy assistants & aides	5,600	9,900	0.6

Category	Number in 1966[a]	Number in 1969	Number/ 100 Bed in 1969
Radiologic technology:			
X ray technologists-technicians	-	31,100	1.9
Nuclear medical and radiation therapy technologists-technicians	24,000	3,100	0.2
Radiologic assistants	6,000	9,000	0.5
Therapeutic services:			
Occupational therapists	4,100	5,400	0.3
Occupational therapy assistants & aides	3,800	5,100	0.3
Physical therapists	8,500	8,600	0.5
Physical therapy assistants & aides	5,200	8,700	0.5
Speech pathologists & audiologists	1,200	1,800	0.1
Recreation therapists & aides	3,800	5,500	0.3
Inhalation therapists & aides	5,600	14,600	0.9
Social workers	10,700	15,200	0.9
Social work assistants & aides	1,500	4,300	0.3
Other health professional and technical:			
Hospital administrators & assistants	-	17,200	1.0
Medical secretaries	-	23,900	1.5
Surgical aides	17,600	23,400	1.4
Obstetric, pediatric, & other physicians' aides	-	10,900	0.7
Electrocardiographic technicians	5,900	9,100	0.6
Electroencephalograph & other medical machine technicians	-	3,100	0.2
Ambulance drivers & attendants	-	5,600	0.3
Personnel in other health occupations	-	21,800	1.3
Trainees not elsewhere reported	-	24,800	1.5

Source: U.S. Department of Health, Education, and Welfare, Health Manpower in Hospitals (Washington, D.C.: U.S. Government Printing Office, 1970), p. 58, and Health Resources Statistics, 1969 (Washington, D.C.: U.S. Government Printing Office, 1970), p. 22.

[a] The categories used in 1966 are not always identical with those used in 1969. Where the categories are similar (even if not identical), 1966 figures are given. Otherwise, 1966 figures are omitted.

[b] Rate not calculated when less than 0.05/100 beds.

[c] In 1966 there were 54,500 medical technologists and 14,600 laboratory assistants.

Exhibit IV-16

PROFESSIONAL AND TECHNICAL PERSONNEL IN ALL HOSPITALS: 1966 AND 1969

Category	Number in 1966[a]	Number in 1969	Number/ 100 Beds in 1969[b]
All professional and technical	1,332,100	1,874,200	113.8
Physicians:			
Medical interns and residents	-	55,000	3.3
Other physicians	-	58,200	3.5
Dental services:			
Dental interns and residents		1,600	0.1
Other dentists		5,800	0.4
Dental hygienists, licensed	-	500	
Dental assistants	-	5,300	0.3
Dental laboratory technicians	-	1,400	0.1
Clinical laboratory services:			
Clinical laboratory scientists	-	4,500	0.3
Clinical laboratory technologists[c]	-	44,500	2.7
Cytotechnologists-technicians	1,600	3,300	0.2
Histologic technicians & aides	3,900	5,600	0.3
Other clinical laboratory personnel[c]	-	42,800	2.6
Dietary services:			
Dietitians	12,700	12,700	0.8
Dietary technicians	-	18,100	1.1
Medical record services:			
Medical record librarians	6,300	6,400	0.4
Medical record technicians	10,100	6,900	0.4
Medical record clerks		33,300	2.0
Nursing services:			
Registered nurses	361,000	461,100	28.0
Practical or vocational nurses, licensed	150,600	205,400	12.5
Nursing aides, orderlies, and attendants	492,000	568,500	34.5
Ward clerks		58,000	3.5
Pharmacy:			
Pharmacists, licensed	9,400	13,600	0.8
Pharmacy assistants & aides	5,600	9,900	0.6
Radiologic technology:			
X-ray technologists-technicians	-	31,100	1.9
Nuclear medical and radiation therapy technologists-technicians	24,000	3,100	0.2
Radiologic assistants	6,000	9,000	0.5
Therapeutic services:			
Occupational therapists	4,100	5,400	0.3
Occupational therapy assistants & aides	3,800	5,100	0.3
Physical therapists	8,500	8,600	0.5
Physical therapy assistants & aides	5,200	8,700	0.5
Speech pathologists & audiologists	1,200	1,800	0.1
Recreation therapists & aides	3,800	5,500	0.3
Inhalation therapists & aides	5,600	14,600	0.9
Social workers	10,700	15,200	0.9
Social work assistants & aides	1,500	4,300	0.3
Other health professional and technical:			
Hospital administrators & assistants	-	17,200	1.0
Medical secretaries	-	23,900	1.5
Surgical aides	17,600	23,400	1.4
Obstetric, pediatric, & other physicians' aides	-	10,900	0.7
Electrocardiographic technicians	5,900	9,100	0.6
Electroencephalograph & other medical machine technicians	-	3,100	0.2
Ambulance drivers & attendants	-	5,600	0.3
Personnel in other health occupations	-	21,800	1.3
Trainees not elsewhere reported	-	24,800	1.5

Sources: U.S. Department of Health, Education, and Welfare, Health Manpower in Hospitals (Washington, D.C.: U.S. Government Printing Office, 1970), p. 38, and Health Resources Statistics, 1969 (Washington, D.C.: U.S. Government Printing Office, 1970), p. 22.

[a] The categories used in 1966 are not always identical with those used in 1969. Where the categories are similar (even if not identical), 1966 figures are given. Otherwise, 1966 figures are omitted.

[b] Rate not calculated when less than 0.05/100 beds.

[c] In 1966 there were 54,300 medical technologists and 14,600 laboratory assistants.

The number of full-time equivalent personnel in hospitals increased 73% between 1960 and 1973. Per 100 patients in the hospitals' average daily census, the number of full-time equivalent personnel increased even more -- 104%, as can be seen in Exhibit IV-17. The number of hospital personnel is growing more rapidly than the number of hospital patients, for the sophisticated care provided by hospitals today requires more personnel per patient.

As can be seen in Exhibit IV-18, the number of hospital personnel per bed increases with the size of the hospital, as is to be expected. Since the larger hospitals are more likely to have teaching programs, they, of course, have more interns, residents, and other trainees per bed. They also have more salaried physicians and dentists on their staffs. However, nurses per bed are about the same for all hospitals with 200 or more beds. It is the "other personnel" (technologists, therapists, etc.) which increase most rapidly as hospitals increase in size.

The number of physicians on hospital salary doubled in the decade between 1963 and 1973.[1] Because of the greater complexity of medical technology, an increasing number of doctors are hired full-time by hospitals to operate certain specialized facilities or to act as chiefs of clinical and supportive departments otherwise staffed by doctors in private practice. Non-teaching hospitals, which traditionally had no medical coverage at night, are beginning to hire salaried nighttime physicians.[2] The demands for better provision of outpatient and emergency care are causing hospitals either to hire doctors to man their outpatient and emergency departments or to contract with groups to provide these services. Sometimes a hospital will contract

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[1] "Full-time Hospital Physicians," Modern Healthcare, April 1975, p. 16r.

[2] Joann Lublin, "More Community Hospitals Employ Physicians To Treat Emergencies During the Small Hours," The Wall Street Journal, December 9, 1974, p. 36.

Exhibit IV-17

HOSPITAL MANPOWER: 1960, 1970 AND 1973

Type/Size of Hospital	Full-Time Equivalent Personnel (000's)			Full-Time Equivalent Personnel per 100 Censu	
	1960	1970	1973	1960	1970
Total U.S. Hospitals	1,598	2,537	2,769	114	196
Non-federal, Short-term Hospitals - Total	1,080	1,929	2,142	226	292
6 - 24 beds	13	12	10	198	288
25 - 49 beds	58	78	71	197	257
50 - 99 beds	128	189	201	213	255
100 -199 beds	234	366	381	227	273
200 -299 beds	217	332	373	235	292
300 -399 beds	239	509	321	237	301
400 -499 beds			247		
500 and over beds	191	443	539	225	326
Other Hospitals - Total	518	608	627	56	96

Source: American Hospital Association, Hospitals, Journal of the American Hospital Association Issue - Part 2, Volume 45, Number 15, August 1, 1971, p. 452; also Hospital Statistics Edition, p. 11.

Note: Excludes interns, residents and other trainees.

Exhibit IV-17

HOSPITAL MANPOWER: 1960, 1970 AND 1973

of Hospital	Full-Time Equivalent Personnel (000's)			Full-Time Equivalent Personnel per 100 Census		
	1960	1970	1973	1960	1970	1973
tals	1,598	2,537	2,769	114	196	233
hort-term Hospitals -						
	1,080	1,929	2,142	226	292	315
6 - 24 beds	13	12	10	198	288	323
25 - 49 beds	58	78	71	197	257	279
50 - 99 beds	128	189	201	213	255	277
100 -199 beds	234	366	381	227	273	293
200 -299 beds	217	332	373	235	292	310
300 -399 beds	239	509	321	237	301	317
400 -499 beds			247			325
500 and over beds	191	443	539	225	326	355
s - Total	518	608	627	56	96	123

n Hospital Association, Hospitals, Journal of the American Hospital Association, Guide
Part 2, Volume 45, Number 15, August 1, 1971, p. 452; also Hospital Statistics: 1974
, p. 11.

interns, residents and other trainees.

Exhibit IV-18

FULL-TIME EQUIVALENT SALARIED PERSONNEL IN U.S. HOSPITALS: 1973

Type/Size of Hospital	Physicians and Dentists		Medical and Dental Interns and Residents		Other Trainees		Registered Nurses		Licensed Practical Nurses		All Other Personnel		
	Number	Per Bed	Number	Per Bed	Number	Per Bed	Number	Per Bed	Number	Per Bed	Number	Per Bed	Numb
Total U.S. Hospitals	50,078	.03	63,148	.04	33,022	.02	446,387	.29	222,599	.15	2,049,543	1.34	2,864,7
Non-federal, Short-term Hospitals - Total	24,485	.03	53,056	.06	23,324	.03	387,868	.43	190,697	.21	1,538,933	1.71	2,218,3
6 - 24 beds	109	.02	5	.00	2	.00	1,907	.32	880	.15	7,025	1.16	9,9
25 - 49 beds	360	.01	69	.00	147	.00	10,965	.26	7,733	.18	52,055	1.22	71,3
50 - 99 beds	881	.01	392	.00	451	.00	32,613	.30	22,487	.21	144,559	1.33	201,3
100 -199 beds	2,819	.02	2,172	.01	2,296	.01	71,303	.40	39,667	.22	266,925	1.49	385,1
200 -299 beds	3,411	.02	4,260	.03	3,014	.02	73,124	.47	33,069	.21	263,399	1.70	380,2
300 -399 beds	3,548	.03	7,425	.06	4,397	.03	61,158	.49	26,152	.21	230,040	1.83	332,7
400 -499 beds	2,752	.03	8,368	.09	3,126	.03	45,542	.49	19,879	.21	178,474	1.91	258,1
500 and over beds	10,605	.06	30,365	.16	9,891	.05	91,256	.49	40,830	.22	396,456	2.12	579,4
Other Hospitals	25,593	.04	10,092	.02	9,698	.02	58,519	.09	31,902	.05	510,610	.80	646,4

Source. American Hospital Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: American Hospital Association, 1974), pp. 34-

Note: Full-time equivalent personnel is the sum of full-time personnel plus one-half the number of part-time personnel.

Exhibit IV-18

FULL-TIME EQUIVALENT SALARIED PERSONNEL IN U.S. HOSPITALS: 1973

Physicians and Dentists		Medical and Dental Interns and Residents		Other Trainees		Registered Nurses		Licensed Practical Nurses		All Other Personnel		Total	
umber	Per Bed	Number	Per Bed	Number	Per Bed	Number	Per Bed	Number	Per Bed	Number	Per Bed	Number	Per Bed
0,078	.03	63,148	.04	33,022	.02	446,387	.29	222,599	.15	2,049,543	1.34	2,864,777	1.87
4,485	.03	53,056	.06	23,324	.03	387,868	.43	190,697	.21	1,538,933	1.71	2,218,363	2.47
109	.02	5	.00	2	.00	1,907	.32	880	.15	7,025	1.16	9,928	1.64
360	.01	69	.00	147	.00	10,965	.26	7,733	.18	52,055	1.22	71,329	1.67
881	.01	392	.00	451	.00	32,613	.30	22,487	.21	144,559	1.33	201,383	1.86
2,819	.02	2,172	.01	2,296	.01	71,303	.40	39,667	.22	266,925	1.49	385,182	2.15
3,411	.02	4,260	.03	3,014	.02	73,124	.47	33,069	.21	263,399	1.70	380,277	2.45
3,548	.03	7,425	.06	4,397	.03	61,158	.49	26,152	.21	230,040	1.83	332,720	2.64
2,752	.03	8,368	.09	3,126	.03	45,542	.49	19,879	.21	178,474	1.91	258,141	2.76
0,605	.06	30,365	.16	9,891	.05	91,256	.49	40,830	.22	396,456	2.12	579,403	3.10
5,593	.04	10,092	.02	9,698	.02	58,519	.09	31,902	.05	510,610	.80	646,414	1.01

l Association, Hospital Statistics: 1974 Edition (Chicago, Ill.: American Hospital Association, 1974), pp. 34-35.

lent personnel is the sum of full-time personnel plus one-half the number of part-time personnel.

with individual doctors in private practice to man their emergency services at specified times. Because of government utilization review requirements and the medical audits required by the Joint Commission on Accreditation of Hospitals, hospitals are hiring salaried medical care directors and utilization review teams to oversee the adequacy of medical records and to assess the quality of patient care.[1] In sum, the growing concern about the quality of care and the increasing complexity of that care are increasing the need for salaried hospital physicians.

HOSPITAL-AFFILIATED DOCTORS AND CHANGING HOSPITAL-DOCTOR RELATIONSHIPS

In addition to the physicians who are full-time salaried staff members of a hospital, a great many physicians are affiliated with a hospital; that is, they use the services of one or more hospitals for their patients. Such physicians are not paid by the hospital, but they are considered members of the "medical staff". They are not hired or fired by the hospital administration but are appointed by the hospital trustees on the recommendation of other doctors on the medical staff. The medical staff members are professionally accountable to their peers, but they are not accountable to the hospital administration, for they have a direct line of authority to the trustees. These physicians use the hospital's resources (instruments, operating rooms and so forth), but they do not pay for these services. Many of the medical staff serve long, unpaid hours on hospital committees and use their influence with the trustees to improve a hospital's services, but the cost of these services is of no direct concern to the staff.[2]

Serious problems for hospital administration are posed by the dual lines of authority, one running through the administrator and the quite separate one running through the medical staff. "The physician can intervene in many areas of the hospital over which he has no formal administrative jurisdiction or authority. Unlike the foreman, who is caught 'in the middle' between his legitimate superiors and subordinates, the nurse is caught between two superiors, administrative and medical."[1]

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[1] "Full-time Hospital Physicians," *op. cit.*, p. 16s.

[2] Morton C. Creditor, "If The Doctors Owned The Hospitals," *New England Journal of Medicine*, January 21, 1971, pp. 134-136.

The physicians have been able to preserve their power over hospitals because of their socio-legal responsibility for patients and their socio-economic independence from the hospital.[2] The hospital provides the physician with his workshop but not his income. The physician provides the hospital with its patients and thus its source of revenues. In effect, it is the physician, not the patient, who is the customer of the hospital: The patient pays, but it is the doctor who decides which hospital services are to be purchased. The physician demands that the hospital provide him with the best possible facilities, and the administrator feels under pressure to accede to the demands of his "customers." The problem is further complicated by the growing specialization of doctors: Each doctor is eager to add services to HIS specialty, and few doctors are in a position to make balanced judgements in light of overall medical needs.

For a number of reasons, the coming years are likely to see some diminution in the independent power of the medical staff. In the first place, "the monopoly the physician once had in the health field is gone."[3] Numerous new types of health professionals have developed with the new medical technology, and physicians numerically comprise an ever smaller percentage of the health profession. In hospitals doctors continue to have overall responsibility for their patients' medical care, but they personally provide only a fraction of the care patients receive. The doctor performs the surgery, prescribes the treatment, and generally pays the patient a brief visit. The rest of the time, the patient's care is in the hands of the nurses, orderlies, medical technicians, interns, and residents. Since the nurse has much more extensive contact with the patient, she may have special insights into the patient's medical needs that the doctor lacks, and nurses are growing bolder about questioning doctors. The medical technicians may have technical knowledge the doctor lacks and thus the power that knowledge gives. "For example, a radiologist recently complained that he was leaving his practice in a community hospital in part because he was no longer in complete control of therapy -- a physicist now determines the use of the cobalt unit."[1]

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[1] Eliot Friedson, Profession of Medicine (New York: Dodd, Mead, 1970), p. 117.

[2] Ibid., p. 120.

[3] Ray Elling, "The Shifting Power Structure in Health," Politics and Law in Health Care Policy, John McKinlay, ed. (New York: Milbank Memorial Fund, 1973), p. 91.

Physicians are also losing some of their economic independence. A growing percentage of the medical staff are not independent practitioners but employees of the hospital. Their salary is paid by the hospital, and, as employees, they are under the authority of the hospital's administrator. The salaried doctor is also psychologically bound to the hospital in a way the independent physician is not. This can sometimes pose problems for the physicians themselves. The salaried chief of a department must supervise independent practitioners who are not employees of the hospital and whom he has no authority to fire. The independent physicians resent the growth of hospital-salaried doctors, who, they fear, will cause independent doctors to be given lower priority in obtaining beds for their patients and a smaller voice in the operation of the hospital. Private doctors are even more nervous that "the hospital as a corporate entity may eventually compete with them for the local patient population...At the worst, full-time clinical chiefs may take over private patients; at the very least, they will

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[1] Ibid.

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be 'looking over my shoulder telling me what to do.'"[1] The independent physicians feel threatened by their full-time colleagues, and their fears are probably not entirely without foundation.

The cost constraints and government regulations increasingly being imposed on hospitals are also eroding the independent power of the medical staff. As economy and efficiency of operation have grown more important, directors of hospitals are less likely to be the physicians that often headed hospitals in the past and more likely to be executives with special training in hospital administration. As hospitals have grown into more complex organizations, greater management ability is required to integrate their diverse operations. As health insurers and government regulators have imposed greater budgetary restrictions, financial wizardry has gained greater importance in running a hospital. The special skills required to manage a modern hospital win for the administrator the respect of the trustees, and his need for greater authority is increasingly recognized.

The world outside the hospital's doors is also handing the administrator greater power. The administrator must increasingly serve as intermediary between the medical staff and the outside world -- government regulators, hospital insurers, community representatives, health planners, and other hospital administrators. The hospital is no longer a tight little island where the oligarchs of the medical staff can hold sway. Certificate of Need laws make it impossible for administrators to accede to all the doctors' requests for new equipment. Budgetary limitations imposed by rate regulators make it necessary for administrators to keep a firm hand on costs. PSRO's will reduce the power of individual doctors to determine the hospital services provided their patients. Community demands push the hospital into providing better outpatient services whether or not this is of great concern to the independent practitioners on the staff. The modern hospital administrator must be a politically astute innovator, sensitive to changes in his institution's environment and imaginative in devising responses to those changes. He can no longer reply solely on the clinical innovations eagerly proposed by the medical staff.

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[1] "Full-time Hospital Physicians," op. cit., pp. 16q-16r.

The changes in the power structure of hospitals are gradually being given institutional recognition. Hospital administrators are being made voting members of their boards of trustees. Traditionally medical staffs elected their own chiefs of staff and department heads, but now the American College of Hospital Administrators is asking that trustees be the ones to appoint staff chiefs and department heads.[1]

The doctors are, of course, concerned about the erosion of their power. The American Medical Association is strongly advocating physician membership on hospital governing boards, and the American Hospital Association has now added its support to this demand of the AMA.[2] The Hospital Association's accrediting body may even make physician membership on the board a prerequisite for accreditation.[3]

While administrators and medical staff are competing for control of the hospital, the recipient of the hospital's services -- the patient -- has little voice in the way care is delivered to him. He does not have the technical knowledge to criticize many aspects of the hospital's operations. About other aspects he can grumble, of course, but unlike a customer in a store, he cannot readily switch his business to another institution. In short, although the patient is technically the customer of the hospital, he has little choice about the institution in which he receives care, and he can exercise little influence over its operation.

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[1] "A Battle Brews Between Hospital Medical Staffs and Trustees," Wall Street Journal, July 31, 1975, p. 1.

[2] "AMA Told of AHA Action to Expand MD's Hospital Voice," American Medical News, December 10, 1973, quoted in Medical Care Review, January 1974, pp. 42-44.

[3] Somers, Health Care in Transition..., op.cit., p. 35.

Traditionally, the physician has served as the patient's "ombudsman", selecting the institution best equipped to meet the patient's needs, supervising the care given, listening to the patient's complaints, and using his influence to improve the care delivered. However, patients have not always found physicians to be adequate ombudsmen, particularly for the non-medical aspects of their care, and hospitals are beginning to add to their staffs special patient representatives to act as liaison between the hospital and the patient and to seek ways of resolving the legitimate grievances of patients.[1] Hospitals are also drawing up a bill of rights for patients, specifying the rights the patient retains even when he is, in effect, the prisoner of the hospital.[2]

Unlike other institutions in our free enterprise system, the hospital has not had customers concerned about the price charged for its services. Since an increasingly large percentage of hospital bills is paid by third parties, the patient is not immediately concerned with costs. In the past, third parties have tended to reimburse hospitals without questioning their costs too much, although this is now changing. (See Chapter III.) The physicians have been unconcerned about hospital expenses since it costs them nothing to use the facilities of their "workshop" to treat their patients. Some students of the problem feel that the most effective way to control costs would be to create some incentive for doctors to work with hospitals to keep costs down. Kaiser does this by sharing with its doctors a portion of any revenues the hospital accrues in excess of its expenses. *If some incentive is given to doctors to play a role in curbing the escalation in hospital costs, physicians may be able to balance medical and economic points of view more successfully than third parties and the rate regulators can.*

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[1] See, for example, Joel Chase, Martin Ames, Mitchell Rabkin, "Dial C-A-R-E for Instant Response," *Hospitals*, March 16, 1974, pp. 62-64.

[2] See, for example, Donald Snook, Jr., "Patient Rights," *Hospitals*, April 1, 1974, pp. 177-180.

THE GOVERNANCE OF HOSPITALS

As the role of the administrator has changed so, too, have the demands placed upon hospital trustees. Because philanthropic donations supply an ever smaller percentage of hospitals' capital needs[1], it has grown less important to fill the board with fund-raisers.[2] With hospital capital expenditures increasingly financed by commercial loans, the hospital today needs trustees with good contacts in the financial world. Businessmen, mostly well heeled executives, still dominate most hospital boards, but a 1973 study of hospital boards of trustees in the Boston area found that a substantial percentage of board members were financiers, particularly on the boards of hospitals with more than 150 beds.[3]

The growing cost constraints being imposed on hospitals has led to a need for trustees with budgetary and administrative expertise. Thus a board needs to include accountants and those with management skills, and it also can use the technical expertise of people such as engineers. Boards now require trustees with specialized skills not just fat wallets.

The increasing regulation of hospitals is one reason that lawyers constitute over 15% of the members of most hospital boards of trustees in Boston.[4] Hospitals also need trustees with good political connections, but surprisingly few non-governmental hospitals have elected public officials on their boards. Apparently they are relying on trustees with political influence rather than political power.

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[1] See Chapter III's section on "The Funding of Hospital Construction."

[2] Theodore Goldberg and Ronald Hemmelgarn, "Who Governs Hospitals?" Hospitals, August 1, 1971, p. 72.

[3] Ian Berger and Robert Earsy, "Occupations of Boston Hospital Board Members," Inquiry, March 1973, pp. 42-46.

[4] Ibid.

The ever more sophisticated care being provided by hospitals has made it necessary to include physicians on the board to help with the complicated medical judgements hospital boards must make. A 1971 study in Detroit found that physicians comprised over 10% of hospital trustees.[1] And, of course, physicians are pushing for still greater representation on boards.

Hospitals have generally been successful in adapting their boards of trustees to their changing financial requirements, legal constraints, and medical complexity. But boards have been far slower to adapt to the fact that they are being transformed from private enterprises to something resembling a public utility. Both the government and the community are increasingly demanding public accountability of hospitals. Health care institutions are expected to meet community needs, to accede to public demands, and not just to serve their own interests or their own interpretation of the public good. Pressure is growing on hospitals to include "community representatives" on their boards. Historically many hospital boards were, in fact, dominated by representatives of the community that created the hospital -- the church groups, the leaders of the community around the hospital, and so forth. But boards, being self-perpetuating, have continued to represent their old community without taking cognizance of the changes in that community.[2] The descendants of the middle-class founders of a hospital often move to the suburbs, but they continue to sit on the board. The poor who have taken their place in the hospital's immediate neighborhood have no voice in the hospital's operation. The hospital's board usually represented well enough the hospital's paying patients, and it seemed unnecessary to provide representation to the charity patients. But today there are few charity patients, thanks to Medicare, Medicaid, and hospital insurance, and growing public demands for political and social equality in every arena have been translated in health care into demands for equal treatment of all patients, regardless of their financial position, and better representation of all types of patients on hospital boards.

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[1] Goldberg and Hemmelgarn, *op.cit.*, p. 76.

[2] Creditor, *op.cit.*, p. 135.

This is a move hospitals have been reluctant to take. It is also a move difficult to implement: Who does represent the diverse community the hospital serves? How are representatives to be chosen? Can community representatives be found who have the time to devote to hospital affairs that prosperous businessmen have been able to give? How do you find community representatives knowledgeable enough to pass judgement on the increasingly technical aspects of hospital governance? The community representation mandated for comprehensive health planning agencies has not been entirely successful.[1] Perhaps the public accountability being required of hospitals can be satisfied by greater inclusion of publicly elected officials on hospital boards. But, however they resolve the problem of community representation, hospital boards will have to develop better linkage to the hospital's environment and become more sensitive to the demands of that environment.[2] The waves of the outside world are increasingly dashing against the hospital's little island, and the board of trustees is unlikely to be any more successful than Canute in commanding the waves' retreat.

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[1] See Chapter II.

[2] Jeffrey Pfeffer describes the intricacies of the role hospital boards of directors must play as the linkage between the hospital and its environment. See his article, "Size, Composition, and Function of Hospital Boards of Directors: A Study of Organization - Environment Linkage," Administrative Science Quarterly, 1973, No. 3, pp. 349-364.

DOCTORS

Although the number of doctors in this country is increasing rapidly, the country appears to be suffering from a "doctor shortage" because of the geographic maldistribution of doctors and the increasing specialization of doctors. In rural areas and in urban ghettos, patients have difficulty obtaining any kind of medical care, and in other areas, where specialists are abundant, patients have difficulty obtaining basic primary care. In part because of pressure from the federal government to improve primary care, training in "family medicine" is being given more emphasis in medical schools and in residency programs. "Physician assistants" are being developed to take off doctors' shoulders some of the simpler medical tasks and thus enable doctors to care for more patients. Doctors are increasingly organizing themselves into group practices, which, among other things, may enable doctors to operate more efficiently. To the dismay of many in the medical profession, graduates of foreign medical schools have been pouring into this country to fill positions for which Americans could not be recruited. Movements are thus underway to alleviate some of the deficiencies in the medical care provided in this country, but the medical profession as a whole has not moved rapidly in balancing its own medical and economic interests with the felt needs of the nation. The doctors' general failure to respond to our changing perception of our medical needs is one force pushing the government into undertaking the programs described in Chapter II.

GROWTH IN THE NUMBER OF DOCTORS AND OF MEDICAL STUDENTS

The total number of physicians in the United States climbed 67% between 1950 and 1973 while the total population increased only 37%. As a result, the number of physicians per 100,000 population has risen almost steadily from 141 in 1950 to 171 in 1973, although the number of non-federal physicians in patient care has grown at a slower pace. (See Exhibit IV-19.)

One reason for the growth in our physician population is the expansion of our medical schools since the end of World War II. In the academic year of 1950-51, there were 79 medical schools in the country with 26,186 students, of which 6,135 graduated that year. In 1973-74, there were 114 medical schools

Exhibit IV-19

PHYSICIAN MANPOWER: SELECTED YEARS 1950-1973

Year	Total Physicians[a]	Physicians Per 100,000 Total Population[b]	Non-Federal Physicians In Patient Care	Non-Federal Physicians In Patient Care Per 100,000 Civilian Resident Population[c]
1950	219,997	141	NA	NA
1955	241,711	142	NA	NA
1960	260,484	141	NA	NA
1965	292,088	147	237,482	123
1970	334,028	159	252,778	124
1973	366,379	171	272,850	131

Source: American Medical Association, Center for Health Services Research and Development, Socioeconomic Issues of Health: 1974 Edition (Chicago, Ill.: 1974), p. 120.

Notes: NA = Not Available.

[a] Includes inactive and address unknown as of December 31.

[b] Total population includes Armed Forces and their dependents in the U.S. and abroad; civilians in the 50 states, D.C., and U.S. outlying areas; and U.S. government and civilian employees and their dependents abroad.

[c] Excludes U.S. outlying areas (Canal Zone, Pacific Islands, Puerto Rico, and Virgin Islands).

with 50,886 students, of which 11,613 graduated that year.[1] (See Exhibit IV-20.) Thus, the number graduating from medical school each year climbed 89% during that 23-year period. Despite this jump in the number of medical schools and in total enrollment, the number of individuals applying to medical schools has been mounting at a faster rate than the number accepted. In the academic year 1953-54, 53% of all applicants were accepted by medical schools, while in 1973-74 acceptances were only 35% of applicants.[2] There is concern that, in becoming more selective, medical schools are getting too many "grinds" with a bent for research and too few students with personalities that make them good candidates for the primary care practice this country needs.

For years the expansion of medical schools was discouraged by the American Medical Association, still harboring unhappy memories of the depression years when the shortage of paying patients left one third of U.S. physicians with incomes below $5,000 a year.[3] In 1967, years after the federal government began financing medical school growth, the AMA finally adopted a public position advocating the education of more physicians.[4] Now, however, physicians are growing uneasy about the number of competitors being churned out by our medical schools, and the American Enterprise Institute concluded in 1973, "There is a distinct possibility of a surplus of physicians by the late 1970's."[5] Heeding such warnings (and worried about budget deficits), the federal government is proposing to reduce the grants it has been bestowing on medical schools to foster their expansion. (See Chapter II.)

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[1] Anne Crowley, ed., "Medical Education in the United States 1973-1974," Journal of the American Medical Association, Supplement January 1975, p.17.

[2] Crowley, op. cit., p.17.

[3] Richmond, op. cit., p. 9.

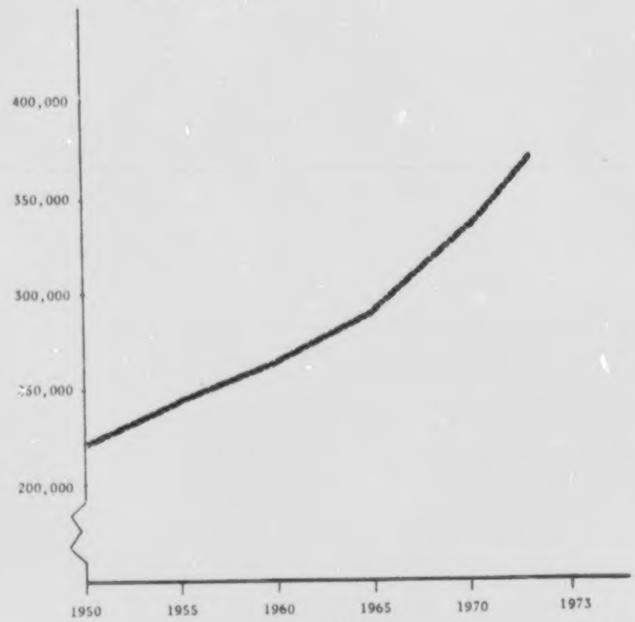
[4] Sheps and Seipp, op. cit., p. 43.

[5] "Doctor Shortage Seems Likely to Turn Into a Surplus by 1980," Wall Street Journal, April 10, 1973, p. 1.

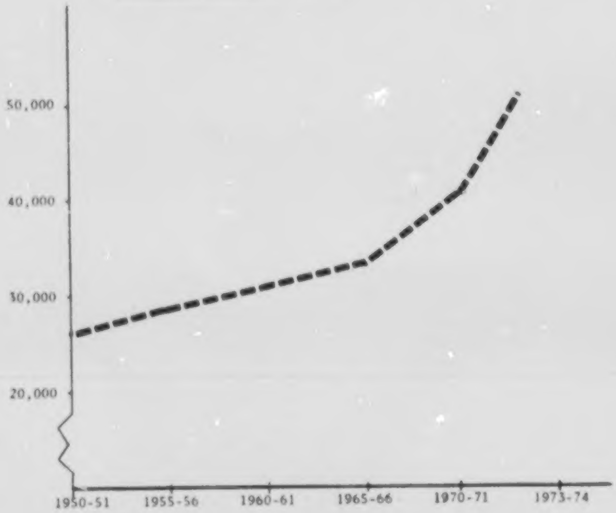
Exhibit IV-20

GROWTH IN THE NUMBER OF DOCTORS AND OF
MEDICAL STUDENTS: SELECTED YEARS 1950-1973

A. The Number of Doctors



B. The Number of Medical Students



Sources: Anne Crowley, ed., "Medical Education in The United States: 1973-74," Journal of the American Medical Association, Supplement January 1975, p. 17.

American Medical Association, Center for Health Services Research and Development, Socioeconomic Issues of Health (Chicago, Ill.: 1974), p. 14.

Pressure and financial inducements from the federal government have not only stimulated the expansion of our medical schools, they have also changed the character of the students enrolled in them. Traditionally medical students have been white males from upper income families. With scholarship and loan funds, supplied primarily by the federal government but also by foundations and the schools' own endowments, the schools have increased their enrollment of Blacks from 2.7% in 1969-70 to 5.9% in 1973-74, and their total minority enrollment (Blacks, Mexican Americans, Puerto Ricans, American Indians, and Orientals) has grown from 5.0% in 1969-70 to 9.2% in 1973-74. There has also been a substantial increase in the number of women enrolled in medical schools: Women comprised 5.7% of medical students in 1959-60, 9.0% in 1969-70, and 15.4% in 1973-74.[1]

In addition to increasing their enrollments, a number of medical schools have attempted to hasten the new doctors' entry into the health care system by lopping up to one year off the traditional four-year program. Reduction in the length of the program both offsets the rising costs of medical education and allows schools to accommodate more trainees over a period of years. Other medical schools are allowing students to enter without the traditional four years of undergraduate college. And some medical schools, by closely meshing premedical education in their parent universities with their own programs, are graduating doctors six years after high school graduation.

RESIDENCY PROGRAMS AND FOREIGN MEDICAL GRADUATES (FMG'S)

Reflecting the expansion of our medical schools is the rapid increase in the number of newly minted doctors completing their training by serving as hospital interns and residents. Actually, the number of interns, after increasing steadily until 1971-72, has been declining in recent years. More and more graduates of medical schools are skipping internship and going straight into a residency program, and hospitals accordingly reduced their offering of internship positions by 21% between 1971-72 and 1973-74. Despite this reduction, 9% of internship positions were unfilled in 1973-74 and 28% had been filled only by using graduates of foreign medical schools.[1]

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[1] Crowley, op. cit., pp. 18-19.

Unlike internships, the number of residency positions offered has grown continuously and rapidly, climbing from 37,357 in 1963-64 to 54,137 in 1973-74.[2] Although this is a smaller percentage increase than the increase in the number of students graduating from medical schools, hospitals still had 9% of their residency positions unfilled in 1973-74, and 28% of the positions had been filled only by using graduates of foreign medical schools. (See Exhibit IV-21.) The percentage of vacant positions has declined considerably since 1971-72, when it was 15%, but the percentage of positions filled by foreign medical graduates has declined only slightly. It would seem that the expansion of U.S. medical schools has helped hospitals man their house staffs but has not yet appreciably reduced their dependence on foreign medical schools.[3]

In residency programs, unlike internships, new medical graduates are trained for some specialty, and the percentage of vacancies and of foreign medical graduates (FMG's) varies greatly from specialty to specialty. The percentage of vacancies is generally highest in the areas the medical profession has tended to neglect, namely rehabilitation and primary care. For example, 27% of the positions in family medicine, 25% of the few positions in general practice, and 23% of the positions in physical medicine and rehabilitation are vacant, and a high percentage of the filled positions in general practice and in physical medicine and physical rehabilitation are filled by

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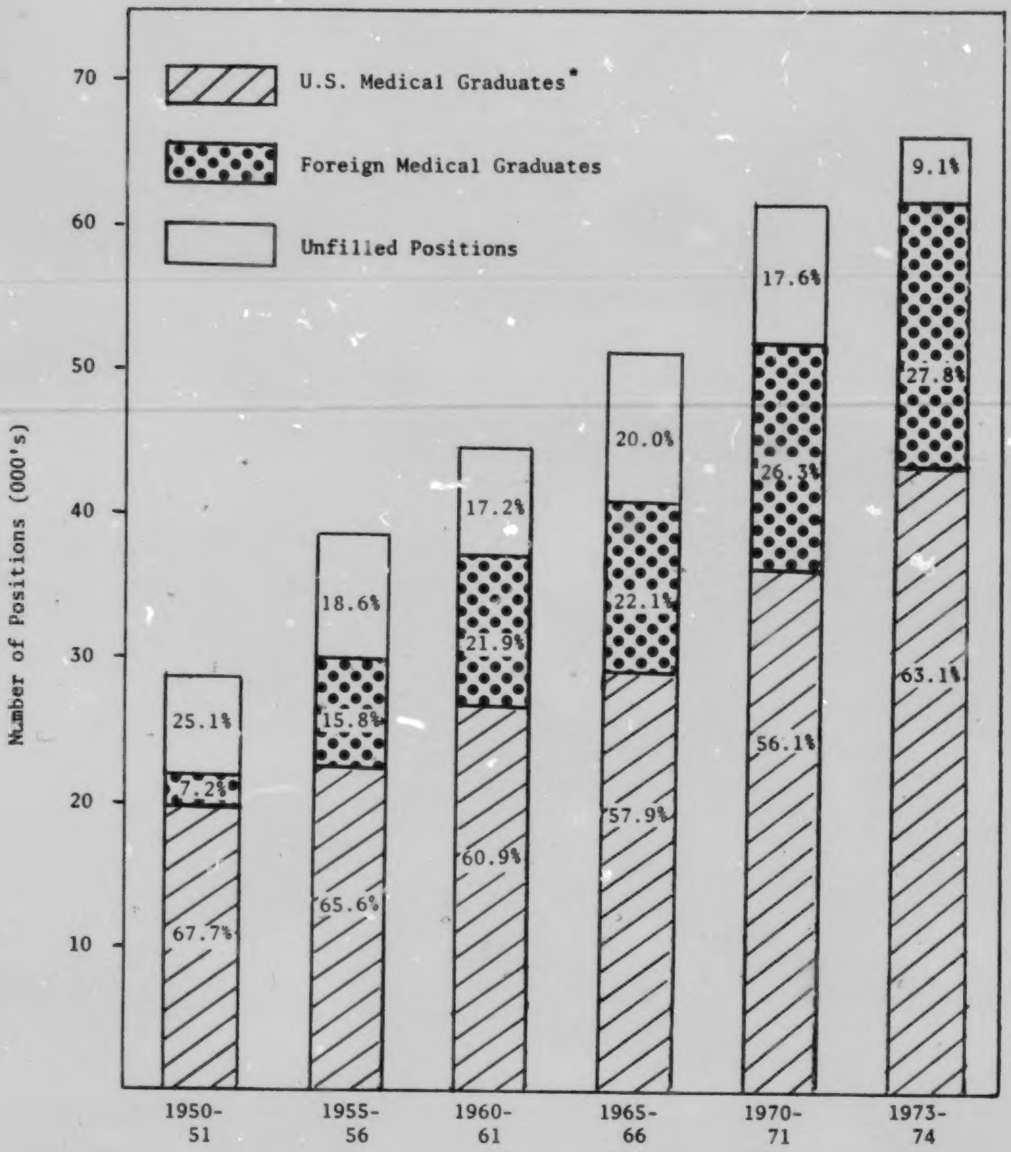
[1] Crowley, op. cit., p. 49.

[2] Ibid.

[3] Graduates of Canadian medical schools are included with U.S. medical school graduates and are not counted as foreign medical graduates.

Exhibit IV-21

RESIDENCY AND INTERNSHIP POSITIONS
IN U.S. HOSPITALS:
SELECTED YEARS 1950-1974



Source: Anne Crowley, ed., "Medical Education in the United States: 1973-74," Journal of the American Medical Association, Supplement January 1975, p. 49.

*Includes graduates of Canadian medical schools.

FMG's.[1] FMG's, however, are not numerous in family medicine residencies. These residencies are generally new programs, and their vacancy rate has been declining.

Two residency programs that are particularly heavily populated with FMG's are anesthesiology and pathology. Of the residency positions filled in these specialties, 54-55% had been filled by FMG's in 1973-74.[2] It should be noted that these are specialties where the doctor usually does not deal directly with the patient and thus is not too badly handicapped by an inadequate command of the English language.

The percentage of FMG's also varies greatly from one type of hospital to another and from one area of the country to another. In hospitals affiliated with medical schools, FMG's comprise 28% of the residents, but in unaffiliated hospitals they comprise 59% of the residents.[3] The big city hospitals in New Jersey, New York, and Rhode Island are particularly dependent on FMG's to staff their residency programs: FMG's comprise 77% of all the residents in New Jersey, 52% of the residents in New York, and 50% of the residents in Rhode Island.[4]

Foreign medical graduates are pouring into the U.S. health system faster than graduates of U.S. medical schools. In the decade between 1964 and 1973, the number of FMG's admitted during the year as immigrants or exchange visitors climbed from 6,767 to 11,732. During the same period, the number graduating each year from a U.S. medical school rose only from 7,366 to 10,391.[5]

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[1] Crowley, op. cit., p. 49.

[2] Ibid.

[3] Ibid.

[4] Crowley, op. cit., p. 43.

[5] U.S. Department of Health, Education, and Welfare, Health Resources Administration, Foreign Medical Graduates and Physician Manpower in the United States, DHEW Publication No. (HRA) 74-30, February 1974, p. 4

In sum, more foreign medical graduates entered the country in 1973 than new doctors were produced by our own medical schools, and of all the doctors who acquired licenses here in 1973, 44.5% were FMG's![1]

An increasingly large percentage of the FMG's coming here are from Asia: In 1972, 70% of the foreign physicians and surgeons admitted to this country as immigrants were from Asia; in 1966, in contrast, Asians comprised only 23%.[2] Most of these Asian doctors are from India, the Philippines, and Korea. The spurt in FMG's from Asia was stimulated by the Immigration Act of 1965, which abolished the long-standing system of quotas based on national origin. This Act also had the effect of encouraging FMG's to come here as immigrants rather than exchange visitors.

The FMG's flooding our internship and residency programs are changing the composition of our physician population, for a large percentage of FMG's stay on in this country after completing their training. A preliminary study by Haug and Stevens found that 74% of FMG's in the United States, who were interns and residents in 1963, were still in this country in 1971, most in apparently permanent positions.[3] As a consequence, the percentage of all our physicians, in and out of hospitals, that were trained in foreign medical schools has grown rapidly: In 1963, 11.2% of all the physicians in the country had been trained in a medical school outside of the U.S. and Canada; by 1973, this percentage had grown to 19.5%.[4] This means that without the FMG's, our ratio of physicians per 100,000 population would not be the 171 indicated in Exhibit IV-19; it would be instead 138 -- LESS than in 1950.

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[1] U.S. Department of Commerce..., Statistical Abstract...1974, op. cit., Table 115.

[2] U.S. Department of Health, Education, and Welfare..., Foreign Medical Graduates..., op. cit., p. 20.

[3] Rosemary Stevens, Louis Goodman, Stephen Mick, "What Happens to Foreign Trained Doctors Who Come to the United States?" Inquiry, June 1974.

[4] American Medical Association, Center for Health Services Research and Development, Distribution of Physicians in the U.S., 1973 (Chicago, Ill.: 1974), p. 42.

Obviously, FMG's are filling important gaps in our health care system. State mental hospitals and other chronic care hospitals, county hospitals, tuberculosis sanitaria, and prison hospitals are largely staffed by foreign doctors.[1] The American Psychiatric Association found that 60% of the filled psychiatric positions in the state mental hospitals it surveyed were held by foreign medical graduates,[2] and in West Virginia ALL staff physicians in the five state mental hospitals and the one institution for the mentally retarded are foreign medical graduates.[3]

The U.S. hospital system is dependent on FMG's not only to fill house staff positions (interns and residents) but also to serve as full-time physician staff. In 1970, not only 32% of all interns and residents but also 30% of all full-time physician staff were FMG's. But FMG's are not just manning our hospitals; they comprise 11% of our doctors in office-based practice. In 1970, of all the graduates of medical schools outside the U.S. and Canada, 29.1% were interns or residents, 18.8% were full-time physician staff, 10.4% were in teaching, research, or administration, but 36.7% were in office-based practice.[4]

FMG's are filling holes in our health care system, but they are also unwittingly contributing to the geographic maldistribution of doctors plaguing this country. In 1970, over 90% of the FMG's were in Standard Metropolitan Statistical Areas,[5] areas which, as a general rule, are far better supplied with doctors than our non-metropolitan areas. In 1970 nearly 27% of the FMG's in this country were in New York state,[1] a state that has a physician to population ratio that is 53% higher than that of the country as a whole.

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[1] U.S. Department of Health, Education, and Welfare..., Foreign Medical Graduates..., op. cit., p. 7; and Stephen Mick, "The Foreign Medical Graduate," Scientific American, February 1975, p. 18.

[2] U.S. Department of Health, Education, and Welfare..., Foreign Medical Graduates..., op. cit., p. 70.

[3] Richard Lyons, "Shortage of 30,000 Doctors Seen by National Institutes of Health," New York Times, January 13, 1974.

[4] J.N. Haug and B.C. Martin, Foreign Medical Graduates in the United States, 1970 (Chicago, Ill.: American Medical Association, 1971), p. 18.

[5] Ibid., p. 14.

A major concern about the flood of FMG's coming into this country is that many of them may not be fully qualified. A New England Journal of Medicine study found that thousands of foreign-trained doctors are practicing medicine without licenses and often without supervision in many American hospitals. Although many of these doctors were officially hired as laboratory technicians or assistants in various low-level job categories, they often assume responsibility for patient care without consulting licensed physicians.[2] Even licensed FMG's may not always be fully qualified, for, in a desperate effort to fill some of the gaps in their physician supply, a number of states grant temporary licenses to uncertified doctors who work in state hospitals or in doctor-poor areas.

Many FMG's providing patient care in our hospitals not only do not have a license; they have not even passed the qualifying examination drawn up by the Educational Council for Foreign Medical Graduates (ECFMG). Passing this examination, more or less the equivalent of the National Boards American medical students take, is supposed to be a requisite for admission to an approved internship or residency program and is thus regarded as an indication that the FMG is competent to provide patient care in a supervised setting. However, the average passing rate for FMG's taking a single ECFMG exam is only 39%. FMG's repeatedly retake the exam, and 67% of all those who take it ultimately pass.[3] Since the ECFMG is administered abroad as well as here, it would be reassuring to think that the failures were all FMG's not yet working in this country. However, an ECFMG survey of FMG's taking the examination in this country in January 1973 found that the pass rate was only 15% for FMG's already working in the health field here.[1]

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[1] U.S. Department of Health, Education, and Welfare..., Foreign Medical Graduates..., op. cit., p. 32.

[2] Robert Weiss, Joel Kleinman, Ursula Brandt, Jacob Feldman, and Aims McGuiness, "Foreign Medical Graduates and the Medical Underground," New England Journal of Medicine, June 20, 1974, pp. 1408-1413.

[3] Weiss, et al., op. cit., p. 1408.

Some of the failures are, of course, due to problems with the English language and perhaps also to unfamiliarity with our testing methods. But it is disconcerting to think that eleven states permit the hiring of non-ECFMG-certified doctors in state mental hospitals, where a doctor, by all rights, should be competent both in medicine and in the language of his patients. And almost all states use, in a variety of roles, ECFMG-certified physicians who do not have permanent licenses and who thus are not considered qualified to provide patient care without supervision.[2] And even FMG's who obtain licenses may do so on the basis of inadequate residency training, for 20% of FMG residents here are in programs which are not under the supervision of a medical school and where few of their fellow residents are products of an American medical education.[3] There is also concern that the ECFMG examination -- or any single test -- is not an adequate measure of a physician's competence.[4]

These statistics are not quite so alarming as they seem at first glance, for many factors beside competence appear to enter into an FMG's ability to acquire a license. "For example, one finds a strong correlation between the type of visa a foreign medical graduate holds and his ability to obtain a license. People who had become U.S. citizens through the naturalization process were licensed at the same rate as American medical graduates, immigrant physicians at a slightly lower rate, and exchange visitors at the lowest rate. There is no a priori reason related to competence why these differentials should exist."[1] There are also wide variations among the states in the percentage of FMG's who pass the licensure examinations: Between 1967 and 1972, 93% of the FMG's applying passed the licensure examination in Iowa, but only 49% passed in Indiana.[2] Although some of these variations may be due to lower standards in states with a doctor shortage, other factors clearly play a role. Iowa and Indiana, which have such different licensure rates, have roughly the same physician to population ratios. These various statistics raise the possibility that some of the unlicensed FMG's may, in fact, be competent doctors. It also should be pointed out that a survey by the American Medical Association found that 66% of FMG's serving as residents or interns here in 1963 had obtained licenses by 1971.[3]

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[1] Ibid.

[2] Ibid., p. 1412.

[3] Crowley, op. cit., p. 40.

[4] Robert Weiss, Joel Kleinman, Ursula Brandt, and Dan Felsenthal, "The Effect of Importing Physicians - Return to a Pre-Flexnerian Standard," New England Journal of Medicine, June 27, 1974, p. 1456.

Not only do many FMG's eventually acquire a license, some even go on and become certified as a specialist. As of 1970, 16% of the FMG's here had been certified by one of the U.S. specialty boards. This is much lower than the 41% of American medical graduates who had been certified, but the comparison is not entirely fair since such a large proportion of FMG's are still interns or residents and thus, under most circumstances, would not be eligible for specialty board certification.[4] However, in all the specialty board examinations given in 1972, the failure rate for FMG's was 63%, whereas the rate for graduates of U.S. medical schools was 27%.[5]

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[1] Stephen S. Mick, "The Foreign Medical Graduate," Scientific American, February 1975, pp. 19-20.

[2] U.S. Department of Health, Education, and Welfare..., Foreign Medical Graduates..., op. cit., p. 43.

[3] Mick, op. cit.. p. 19.

[4] Ibid., p. 47.

[5] U.S. Deparment of Health, Education, and Welfare..., Foreign Medical Graduates..., op. cit., pp. 47-48.

The requirements for specialty board certification include completion of an approved internship and residency program, written and oral examinations, and varying years of practice. The total time required between medical school graduation and specialty board certification has been cut in recent years roughly from twelve to six years.[1] In 1974 there were twenty specialty boards and five sub-specialty boards under the American Board of American Specialties.[2] A physician need not be certified by a specialty board in order to practice a specialty, but the specialty boards have played an important role in raising the quality of medical care in this country.

Specialty board certification, however, is no assurance that an FMG has the command of the English language required for patient care. And even those who master the language may not have sufficient understanding of our culture and our mores to deal well with patients. (And to think that a fourth of our psychiatrists are products of foreign medical schools!)[3]

Another concern about FMG's is the fact that so many of them come from less developed nations already suffering from a physician shortage. However, these countries often do not have a health system that offers a good income or a practice that is considered desirable to many of the doctors so expensively educated by their native land. As in the U.S., doctors in less developed countries are eager to provide specialty care in urban areas, and facilities for such a practice are limited.

There is also resentment in this country about the number of FMG's manning our health care system when so many Americans are not able to get into a medical school and thus cannot become eligible to man the health system themselves. Something does seem amiss when the prosperous United States cannot train enough of its own citizens to staff its hospitals. But how many U.S. medical graduates are ever likely to be eager to work in a dreary state mental hospital? Would any U.S. medical graduates be willing to work for less than $10,000 a year as many uncertified FMG's do?[1] Already the ratio of physicians to general population is higher in the United States than in either the United Kingdom or Sweden.[2] Our problem thus may be as much the distribution as the supply of native physicians.

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[1] Edith Levitt, Melvin Sabshin, and Barber Mueller, "Trends in Graduate Medical Education and Specialty Certification," New England Journal of Medicine, March 1974, pp. 545-549.

[2] Florence Wilson and Duncan Neuhauser, Health Services in the United States (Cambridge, Mass.: Ballinger, 1974), p. 59.

[3] Mick, op. cit., p. 14.

One proposal to cope with the apparent disjointedness in the U.S. physician supply is to reduce the number of residency positions in hospitals to match more closely the number of students graduating from U.S. medical schools. The Association of American Medical Schools made such a proposal in April 1974, and in February 1975 Representative Paul Rogers of Florida introduced a bill that would limit the number of residencies to 125% of the number of medical school graduates each year.[3] This bill seems to overlook that fact that most newly minted doctors do several years of residency before embarking on practice, but residency positions could certainly be brought closer in line with the output of U.S. medical schools. The hospitals now relying on the labor of residents (and enjoying the prestige of having a residency program) may not, however, be enthusiastic about such a prospect. And cutting back on residency programs would presumably not reduce the number of FMG's on hospitals' full-time physician staffs and might reduce FMG's opportunities to obtain proper training before taking such positions. The principal reason for the flood of FMG's is the mismatch between our supply of native physicians and our medical needs. Eliminating FMG's will not eliminate the mismatch; it might just mean that patients now cared for by unqualified FMG's would receive no medical care at all.

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[1] Weiss et al., "The Effect of...," op. cit., p. 1457.

[2] Barry Stimmel, "The Congress and Health Manpower: A Legislative Morass," The New England Journal of Medicine, July 10, 1975, p. 69.

[3] "Educators Still Fear U.S. Controls," American Medical News, February 10, 1975, quoted in Medical Care Review, March 1975, p. 272.

DISTRIBUTION OF PHYSICIANS BY ACTIVITY

As physicians in the U.S. have grown in number, their distribution among the different types of professional activity has changed somewhat. (See Exhibit IV-22.) The most striking change is the decline in the percentage of physicians in office-based practice: Such physicians comprised 68.6% of the total in 1963, but only 59.6% a decade later. The percentage of physicians in all types of patient care fell, too, but this drop was less steep since the decline in office-based physicians was compensated in part by the larger percentage in hospital-based practice. Surprisingly enough, the biggest growth among the hospital physicians was not among full-time physician staff but among residents.

One interesting thing about the full-time physician positions in hospitals is that they tend to attract younger men. In 1967, of the doctors who had earned their degrees in 1955-59, 17.8% were on a hospital's full-time physician staff, while only 9.9% of the 1945-59 graduates were working full-time on a hospital staff.[1] Thus, the growing emphasis on hospital rather than office-based practice is particularly marked among younger doctors.

The percentage of doctors in research more than doubled between 1963 and 1973, but almost all this growth occurred before 1970. Obviously, the government's recent shift in emphasis from research to the provision of care has been reflected in the distribution of physicians. As the administration of our health care system has grown more complex, the percentage of doctors in administration has grown substantially. In sum, the professional activities of physicians have undergone considerable change in the last decade or two.

THE UNDERSUPPLY OF PRIMARY CARE DOCTORS

The growing complexity of medical technology -- and our health system's obsession with that complexity -- has fostered increasing specialization among doctors. As a consequence, doctors in general practice have shrunk not only

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[1] American Medical Association, Center for Health Services Research and Development, Selected Characteristics of the Physician Population, 1963 and 1967 (Chicago, Ill.: 1968), pp. 18, 158.

Exhibit IV-22

DISTRIBUTION OF PHYSICIANS BY ACTIVITY: SELECTED YEARS 1963-1973

Physician Activity	1963		1970		1972		1973	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Total	261,728	100.0 %	311,243	100.0%	333,259	100.0%	338,111	100.0%
Patient Care	246,951	94.3 %	278,535	89.5%	292,210	87.7%	295,257	87.3%
Office-based Practice[a]	179,449	68.6	192,439	61.8	201,302	60.4	201,435	59.6
Hospital-based Practice	67,502	25.6	86,096	27.7	90,908	27.3	93,822	27.7
Interns	9,517	3.6	11,449	3.7	11,496	3.4	11,953	3.5
Residents and Fellows	28,999	11.1	39,779	12.8	42,055	12.6	46,299	13.7
Physician Staff	28,996	11.1	34,868	11.2	37,357	11.2	35,570	10.5
Medical Teaching	8,190	3.1	5,588	1.8	5,636	1.7	6,183	1.8
Research	3,255	1.2	11,929	3.8	9,290	2.8	11,959	3.5
Administration	3,332	1.3	12,158	3.9	11,074	3.3	8,332	2.5
Other	—	—	2,635	0.8	2,693	0.8	2,636	0.8
Not Classified	—	—	358	0.1	12,356	3.7	13,744	4.1

Sources: American Medical Association, Distribution of Physicians in the United States, 1970 (Chicago, Ill.: 1971), p.3.

American Medical Association, Distribution of Physicians in the U.S., 1972: Volume 1/Regional, State, County (Chicago, Ill.: 1973), p. 71.

American Medical Association, Distribution of Physicians in the U.S., 1973 (Chicago, Ill.: 1974), p. 38.

Note: These data do not include physicians who are inactive or whose address is unknown.

— = Not Applicable.

[a] Physicians in "office-based practice" include doctors in solo practice, doctors practicing in groups, and those practicing in clinics.

as a percentage of the total but also in absolute numbers. As can be seen in Exhibit IV-23, the number of non-federal general practitioners (GP's) in the United States fell from 70,405 in 1963 to 51,653 in 1973. This meant that doctors in general practice declined from 28% of all non-federal doctors in 1963 to 17% in 1973. Even among physicians in office-based practice, the percentage of GP's has declined precipitously, as can be seen in Exhibit IV-24. The percentage of GP's is even lower in urban areas, for nearly a third of our remaining GP's are practicing in non-metropolitan communities. In such communities, GP's comprise 44% of the few doctors still providing office-based care.[1]

Our primary care physicians have not shrunk quite as much as the statistics on GP's would indicate, for today there are certain types of specialists that focus on primary care: internists, pediatricians, specialists in obstetrics and gynecology, and practitioners of "family medicine." The latter is a new specialty, which is concerned not just with providing primary care but with providing that care to the family as a unit, recognizing the impact of the family as a whole on the physical and mental health of individual members. The family practitioner is modern medicine's replacement for the traditional GP.

However, even if one adds to the GP's these other primary care providers, only 47% of U.S. doctors are focusing on primary care. In contrast, in U.S. prepaid group practices, the percentage of primary care doctors is 69%, and in the British National Health Service the figure is 74%. Not only are primary care providers underrepresented in our health care system, but there is every prospect that this underrepresentation will grow worse rather than better: While 47% of all U.S. physicians are now in primary care, only 37% of physicians now in the residency training are in primary care specialties. In the United States today the

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[1] American Medical Association, Center for Health Services Research and Development, Distribution of Physicians in the U.S., 1973 (Chicago, Ill.: 1974), p. 15.

Exhibit IV-23

DISTRIBUTION OF NON-FEDERAL PHYSICIANS BY SPECIALTY: SELECTED YEARS 1963-1973

Specialty	1963		1967		1969		
	Number	Percent	Number	Percent	Number	Percent	Numbe
Total	253,226	100.0%	279,418	100.0%	293,397	100.0%	297,5
General Practice	70,405	27.8	65,430	23.4	55,341	18.9	51,6
Medical Specialties	50,846	20.1	61,115	21.9	64,322	21.9	78,7
Surgical Specialties	65,017	25.7	75,286	26.9	76,303	26.0	85,3
Other Specialties[a]	66,958	26.4	77,587	27.8	97,431	33.2	81,8

Sources: American Medical Association, Department of Survey Research, Center for Health Services Res Development, Distribution of Physicians, Hospitals, and Hospital Beds in the U.S., 1969, Vo (Chicago, Ill.: 1970); Selected Characteristics of the Physician Population, 1963 and 1967 1968), and Distribution of Physicians in the U.S., 1973 (Chicago, Ill.: 1974), p. 76.

[a] In 1963, 1967 and 1969, includes inactive physicians as well as specialists in psychiatry, radiology, etc. In 1973, inactive and not classified physicians are excluded.

Exhibit IV-23

DISTRIBUTION OF NON-FEDERAL PHYSICIANS BY SPECIALTY: SELECTED YEARS 1963-1973

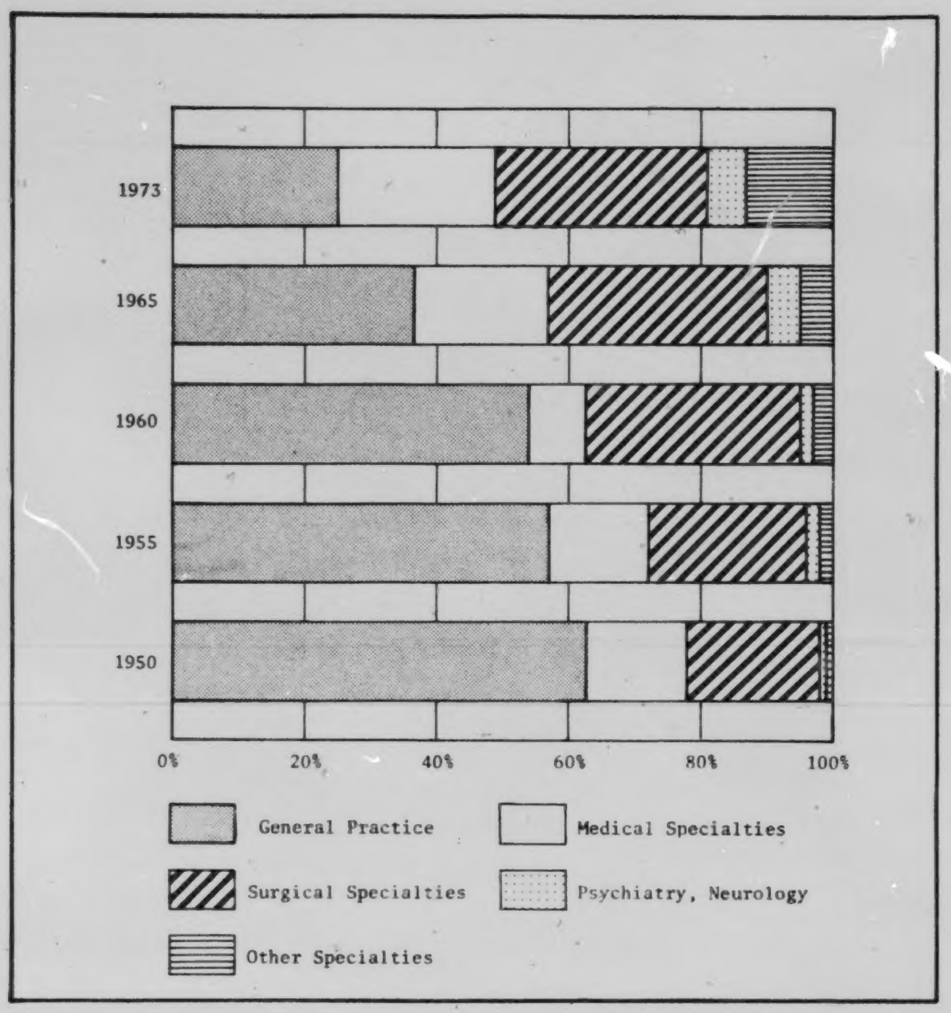
1963		1967		1969		1973	
Number	Percent	Number	Percent	Number	Percent	Number	Percent
253,226	100.0%	279,418	100.0%	293,397	100.0%	297,598	100.0%
70,405	27.8	65,430	23.4	55,341	18.9	51,653	17.4
50,846	20.1	61,115	21.9	64,322	21.9	78,708	26.4
65,017	25.7	75,286	26.9	76,303	26.0	85,343	28.7
66,958	26.4	77,587	27.8	97,431	33.2	81,894	27.5

ical Association, Department of Survey Research, Center for Health Services Research and
Distribution of Physicians, Hospitals, and Hospital Beds in the U.S., 1969, Vols. I and II
.: 1970); *Selected Characteristics of the Physician Population, 1963 and 1967* (Chicago, Ill.:
stribution of Physicians in the U.S., 1973 (Chicago, Ill.: 1974), p. 76.

includes inactive physicians as well as specialists in psychiatry, radiology, pathology,
and not classified physicians are excluded.

Exhibit IV-24

SPECIALIZATION OF NON-FEDERAL PHYSICIANS IN PRIVATE PRACTICE: SELECTED YEARS 1950-1973



Sources: O.D. Dickerson, Health Insurance (Homewood, Ill.: Richard D. Irwin, Inc., 1968), p. 77.

U.S. Department of Health, Education, and Welfare, Office of the Assistant Secretary for Planning and Evaluation, Health, Education and Welfare Trends, 1966-67 Edition (Washington, D.C.: U.S. Government Printing Office, 1968), p. S-48.

American Medical Association, Center for Health Services Research and Development, Distribution of Physicians in the U.S., 1973 (Chicago, Ill.: 1974), p. 76.

Note: These figures differ from those in Exhibit IV-23 because IV-23 figures refer to all non-federal physicians and IV-24 figures refer only to those in private practice.

primary physician ratio is 60 per 100,000 population, but a study by Schonfeld and others at Yale University estimates that a primary physician ratio of 133 per 100,000 population is necessary to provide adequate primary care.[1]

The U.S. health system is clearly undersupplied with primary care providers, but it may be oversupplied with surgeons. While 24% of our doctors are surgeons, U.S. prepaid group practices find it necessary to have only 20% of their physicians be surgeons, and in Britain only 8% of physicians are surgeons. There is a suspicion that the abundance of surgeons in our health system is a major reason that the U.S. population as a whole undergoes twice as much surgery as the British population or as members of U.S. prepaid group practices.[2]

The U.S. health care system is increasingly staffed not just by specialists focusing on secondary care but by superspecialists focusing on tertiary care. Before 1972, subspecialty certificates, awarded in four areas by the American Board of Internal Medicine, represented 11% of the general certificates awarded; by 1972 this figure increased to 37% of general certificates, and awards were in eight subspecialty areas.[3]

Many incentives against practicing primary care are built into our health care system. Specialization, not primary care, is the road to power, prestige, and wealth. "Primary care physicians earn less money and work longer and more irregular hours than specialists," reported Dr. Burwell of the Harvard Medical School at an AMA Primary Care Institute. "Specialists tend to dominate medical societies and the boards of insurance firms; as a result, many of the primary care physician's services are not even covered by health insurance...Dr. Burwell also criticized the quality of primary care teaching in medical centers."[1] The medical schools providing leadership in the health field tend to focus on secondary and tertiary care, and the faculty's enthusiasm for this level of care, not unnaturally, infects the students. The growing complexity of medicine also makes it more difficult to provide good primary care. How much of the rapidly multiplying store of medical knowledge should be mastered by a competent primary care practitioner?

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[1] "Health Services," *Congressional Record* 120:H3270, April 25, 1974, quoted in *Medical Care Review*, May 1974, p. 561.

[2] *Ibid.*

[3] Stimmel, *op. cit.*, p. 72.

Our whole health system operates under quite a different medical philosophy than that found in England, where primary care is emphasized. U.S. doctors tend to fire an expensive broadside of tests at the patient to rule out every diagnostic possibility, rather than the careful choice of a few tests to prove or disprove the particular diagnosis that seems most likely. The American physician also tends to apply more heroic and more vigorous treatment than his British counterpart.[2] Some of the difference in medical philosophy is due to American physicians' far greater problems with malpractice suits, but some is a reflection of the U.S. health system's fascination with the new medical technology, particularly the more expensive aspects of it. We have become so obsessed with our elaborate machinery that we tend to overlook the simpler physical and emotional needs of the patient.

Although the blossoming of specialists is one reason for the striking advances in medicine in recent decades, the consumer has paid a price for the increasingly sophisticated care available to him. He has lost his "medical friend", a role more readily assumed by a GP or a family practitioner than by most specialists. The primary care generalist has these advantages over a specialist:

- He can treat a patient as a whole person, not just a wheezing lung or an unreliable heart. He can integrate medical care so that treatment for one malady does not aggravate another.

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[1] "There Are Plenty of Incentives Against Practicing Primary Care," American Medical News, January 27, 1975, quoted in Medical Care Review, February 1975, p. 142.

[2] Charles Janeway, "Family Medicine--Fad or for Real," New England Journal of Medicine, August 15, 1974, p. 339.

- If he treats the patient's family, he can consider the family's medical and psychological problems in treating the individual.
- He can treat the patient for the less complex medical problems that comprise the great majority of patients' complaints, and he may be more likely than the specialist to recommend simpler remedies. He can also reassure the patient about maladies which trigger symptoms worrisome to the patient but which in fact do not require any real medical treatment. In short, the primary care generalist can help the patient distinguish between serious and less serious ailments. And, by emphasizing primary care, the non-specialist may reduce the patient's health care costs.
- When the need for a specialist is indicated, the primary care doctor can give the patient guidance about exactly what kind of specialist he requires and can suggest some names to the patient.
- The primary care doctor can resume care of the patient when the specialist's treatment has been completed, when the patient's need is for overall medical care that encompasses his diverse medical needs.
- The GP or family practitioner can guide the patient through the complexities of our health care system, can steer him to a specialist, to a hospital, or to a nursing home as the changing situation requires. Knowing the whole individual -- and his family --, the GP or family practitioner can sometimes provide wiser counsel than a specialist.
- The GP or family practitioner is more likely to be concerned about preventive care and continuing care, areas generally neglected by specialists.
- The GP or family practitioner is more likely to be concerned about the patient's psychological needs and to be more perceptive about any psychological element in his medical problems. He is better able to look beyond diagnosis of disease to evaluation of the patient.[1]

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[1] Janeway, op. cit., p. 340.

- GP's and family practitioners are less likely than specialists to pressure hospitals to add expensive equipment.

Efforts are now being made to give greater emphasis in our health care system to general primary care. As was indicated in Chapter II, the government is giving medical schools financial incentives to train more primary care doctors and awarding grants to teaching hospitals for family practice residency programs. Medical schools are instituting courses in family medicine, and approved family practice residency programs in hospitals grew from 62 in 1970 to 219 in 1974.[1] Some questions, however, have been raised about the residency programs. Generally located in smaller cities and communities, the programs may not be receiving sufficient medical school guidance and supervision. The quality of the programs may also be impaired by their rapid growth and by uncertainty about what family medicine should include.[2] These programs initially attracted few aspiring doctors, but 20% of the medical school graduating class applied for family practice training in 1974.[3] Another trend that may improve primary care is the effort of hospitals to reorganize and expand their outpatient departments and the return of some hospitals to their earlier practice of giving residents extensive experience in dealing with outpatients.

When these new doctors begin to set up practice, there may in time be less of a discrepancy between our primary care needs and the care provided by our health delivery system. There may even be lower hospitalization rates, for greater use of primary care doctors appears to lower hospitalization.[4]

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[1] Stimmel, op. cit., p. 72.

[2] Robert Petersdorf, "Internal Medicine and Family Practice," New England Journal of Medicine, August 14, 1975, pp. 326-332.

[3] Stimmel, op. cit., p. 72.

[4] Martin Feldstein, "Hospital Cost Inflation: A Study of Non-Profit Price Dynamics," American Economic Review, December 1971, pp. 870-871.

If National Health Insurance is instituted with good coverage for primary care, some of the financial disincentives to provide primary care may be removed, as may some of the incentives for excessive reliance on hospitalization. In sum, any shift in the thrust of medical care may well have repercussions on our hospitals -- and on our health care costs. But it will be a long, slow process to change the attitudes and the priorities of the medical profession as a whole. Our specialists providing secondary and tertiary care have no difficulty attracting patients and earning large incomes, so they have no reason to find fault with our existing health care delivery system.

GEOGRAPHIC MALDISTRIBUTION OF PHYSICIANS

The shortage of primary care physicians is matched by the severe shortage of doctors of any kind in rural areas and in our congested central cities. Physicians tend to locate in prosperous medium-sized cities and in suburbs of the big cities, and the rest of the country is left with inadequate medical attention. Of the 311,342 active non-federal physicians in 1973, nearly 87% were located in metropolitan areas, while only about 75% of the population lived in such areas. (See Exhibit IV-25.) As a result, while there were about 172 physicians per 100,000 population in metropolitan areas, there were only 79 doctors per 100,000 population in non-metropolitan areas. Furthermore, the large number of doctors in our urban areas are not distributed evenly: Urban physicians tend to cluster in the wealthier districts, leaving very few to provide medical care in the ghettos. In Chicago, for example, poverty areas have a ratio of 26 physicians per 100,000 population, while affluent areas of the city have 210 physicians per 100,000 population, a variation of more than 800%.[1] Similarly, doctors tend to flock to our wealthier states: New York state, for example, has about 244 non-federal physicians per 100,000 population, while Mississippi has only about a third that number.[2]

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[1] "Health Services," Congressional Record 120:H3270, April 25, 1974, quoted in Medical Care Review, May 1974, p. 560.

[2] American Medical Association..., Distribution of Physicians...1973, op. cit. pp. 20-21.

Exhibit IV-25

DISTRIBUTION OF NON-FEDERAL PHYSICIANS, BY LOCATION: 1973

	Total	Metropolitan Areas[a]		Non-Metropolitan Areas	
	(100.0%)	Number	Percent	Number	Percent
Active non-federal physicians as of December 31, 1973	311,342	270,022	86.7%	41,320	13.3%
U.S. resident population (000) as of December 31, 1972	209,448	156,922	74.9	52,526	25.1
Physicians/100,000 population	148.6	172.1	-	78.7	-

Source: American Medical Association, Center for Health Services Research and Development, Distribution of Physicians in the U.S., 1973 (Chicago, Ill.: 1974), pp. 15-16.

Note: - = Not Applicable.

[a] Includes 252 SMSA's (Standard Metropolitan Statistical Areas) and 43 "potential" SMSA's as defined by the U.S. Census Bureau.

Areas such as Mississippi are clearly inadequately served by physicians, but the affluent areas of New York City, with 250 physicians per 100,000 population, have far more than the 154-167 ratio of physicians to population thought to be necessary for good health care.[1] Yet the doctors clustered in our prosperous areas have an abundance of patients and thus no incentive to move elsewhere.

As indicated in Chapter II, the federal government has undertaken two programs to remedy the geographic maldistribution of doctors in this country: the National Health Service Corps, which pays the salaries of physicians willing to work in doctor-short areas; and cancellation of up to 85% of a medical student's loans if he works for three years in a shortage area.

Less direct methods of tackling the problem are also being tried. Some state medical schools are being expanded in hopes of creating doctors to serve in the state's doctor-poor areas, but, unfortunately, the new doctors, trained at great cost, tend to gravitate to other states already well supplied with physicians.[2] Another approach is to recruit more medical students from small towns and rural areas because some studies have found that these students are more likely to return to such areas to practice.[3] An AMA survey in 1970, for example, found that 49% of the physicians raised in small towns were practicing in communities of 2,500 or less, and an equal percentage of doctors raised in non-metropolitan communities of 25,000 or more were practicing in cities of that size.[1] An additional advantage of increasing the enrollment of medical students from non-metropolitan areas is that such students have been found more likely to enter general practice and to express greater interest in the interpersonal aspects of patient care.[2] Because of such findings, the University of Florida in 1973 initiated a special family practitioner training program, drawing its students exclusively from small towns, rural areas, and inner city areas.[3] The federal government's efforts to increase minority enrollment in U.S. medical schools are inspired, in part, by the hope that a substantial percentage of such students will return to practice in the urban ghettos, Indian reservations, and impoverished rural areas from whence they came. There is some doubt, however, about the effectiveness of such efforts in changing the geographic distribution of physicians.[4]

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[1] Marc Lalonde, A New Perspective on the Health of Canadians (Ottawa: Government of Canada, April 1974), p. 29.

[2] See "Government Financing of Medical Education" in Chapter II.

[3] James Cooper, Karen Heald, Michael Samuels, Sinclair Coleman, "Rural or Urban Practice: Factors Influencing the Location Decision of Primary Care Physicians," Inquiry, March 1975, pp. 18-25.

In addition to recruiting students from doctor-short areas, efforts are sometimes made to reverse the process, that is, to provide some portion of prospective doctors' training in inadequately served areas. The hope of such "remote-site training" programs is to inculcate in students a desire to return to practice in a similar location. The difficulty with this concept is that the inadequately served areas don't have enough physicians to provide proper supervision to the medical students or residents sent there, and trainees are likely to find the experience discouraging rather than inspiring.[5]

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[1] "The Physician Scholarship Program," Congressional Record 120:S5303, April 5, 1974, quoted in Medical Care Review, May 1974, p. 573.

[2] U.S. Department of Health, Education, and Welfare, Health Resources Administration, Factors Influencing Practice Location of Professional Health Manpower, DHEW Publication No. (HRA) 75-3, July 1974, p. 28.

[3] Ibid.

[4] Rashi Fein, "On Achieving Access and Equity in Health Care," Milbank Memorial Fund Quarterly, October 1972, p. 182.

[5] Stimmel, op. cit., p. 70.

To date these various programs have done little to alter the geographic maldistribution of physicians in this country. Indeed, the problem has grown worse in the last decade. In Kansas, for example, 50 of the 105 counties lost physicians between 1963 and 1970, and the trend is likely to accelerate since in 20 counties more than 50% of the physicians are over 60 years of age. The number of doctors in inner cities is also decreasing. In Chicago, for example, the private office-based physician ratio in the inner city fell from 111 per 100,000 population in 1950 to 75 per 100,000 population in 1970, while the ratio in the suburbs rose from 95 to 123 during that period.[1] As indicated in Chapter II, the government's Medicare and Medicaid programs have actually helped increase the concentration of doctors in our wealthier areas by making it possible for ever larger numbers of doctors to earn a high income in areas already rich in doctors. National Health Insurance might have the same effect, although it would make it economically feasible for a doctor to practice in a rural area or a ghetto where few patients now can afford to pay for medical services.

The problem of getting physicians out to the countryside is not peculiar to the United States. Even Communist countries have difficulty attracting physicians from the cities to the provinces. One possible remedy is Senator Kennedy's proposal that all physicians be required to serve for a period in government-assigned areas. Such a national service requirement would be less discriminatory than the existing loan forgiveness program, which provides a greater incentive to financially needy students than to wealthier students using few loans to get through medical school. Another possibility is tax abatements and other economic incentives given to physicians who practice in underserved locations. The HMO law is doing this to some extent by providing seed money to establish HMO's in rural areas. (See Chapter III.)

But the financial inducements to practice in remote areas will have to be large, for physicians gravitate to prosperous middle-size towns and suburbs, not only because of the high incomes they can earn there, but also because such areas offer good schools, low crime rates, cultural opportunities, and attractive recreational facilities. Professional opportunities also affect a doctor's choice of location. Specialists in particular are attracted to areas offering well equipped hospitals, extensive contract with other physicians, and often at least indirect contact with a medical school to help the doctor keep in touch with new developments in medicine.[1] And the subspecialties drawing a growing number of doctors can usually only be practiced in areas with a reasonably large population. Thus, the increasing specialization of doctors is contributing to their geographic maldistribution. But so, too, is the doctor's quite understandable quest for the Good Life. The physician may be pledged to serve humanity, but, after the interminable grind of medical school and residency training, he wants to serve humanity in a comfortable setting and to earn an income that will compensate for all the impoverishment of his training years.

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[1] "Health Services," op. cit., p. 560.

THE DOCTOR SHORTAGE

Although the United States has a higher physician to population ratio than either the United Kingdom or Sweden,[2] the uneven geographic distribution of physicians and the decline of primary care practitioners have made it increasingly difficult for some sectors of the population to obtain the medical attention they need and want. Aggravating the problem is the fact that the demand for doctors' services is growing. As the population becomes better educated, it becomes more aware of what medical care can accomplish and is quicker to seek medical attention. As the population becomes wealthier, it can afford more medical care. As it becomes older, it needs more medical care. Thus, the changing characteristics of our population are stimulating the demand for doctors. And if any National Health Insurance scheme should be instituted, it would make medical care economically feasible for many who today cannot afford it.

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[1] U.S. Department of Health, Education, and Welfare..., *Factors Influencing...*, *op. cit.*

[2] Stimmel, *op. cit.*, p. 69.

But, unlike other areas of the economy, the growing demand for medical services is not readily translated into a matching increase in the supply because "the physician can control his market to a substantial degree, administering price, quantity, and quality.... The physician does not have complete control (or freedom), but he does have sufficient control to affect the market so that the signals it would normally send regarding shortage and oversupply are missing.... [The geographic maldistribution of physicians and the inadequate supply of primary care practitioners] are the outcome of a process that permits the physician to determine the allocation of resources (his as well as much of the health sector) without the constraints set by normal requirements of meeting consumer demand (which he can influence) or government regulation (which is weak at best and often absent)."[1] In our topsy-turvy medical world, supply creates demand, and not vice versa. So an oversupply of certain types of physicians in some areas just stimulates the demand for medical care, and the physician shortage in other areas simply dampens demand.

The mismatch between our physician supply and our medical needs is thus not likely to be remedied simply by waiting for the system to get itself back into balance. As indicated earlier, the government has attempted to step into the breach with a number of programs to increase the supply of doctors and to steer more doctors into primary care and into underserved areas. Another means of tackling the doctor shortage is to make our existing physician supply stretch farther by two methods: using "physician assistants" and other allied health personnel to relieve doctors of some of their simpler chores; and expanding group medical practices in hopes of enabling doctors to care for patients more efficiently. Both approaches also offer some potential for improving the provision of medical care and perhaps even alleviating some of the escalation in health care costs.

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[1] Rashi Fein, "On Achieving Access and Equity in Health Care," Milbank Memorial Fund Quarterly, October 1972, pp. 176, 178-179, and 181.

PHYSICIAN ASSISTANTS

One attempt to alleviate the apparent doctor shortage is the development of a new group of health workers to take over from physicians some of the more routine aspects of medical care. Generally called "physician assistants" or "nurse practitioners", these specially trained paraprofessionals can assist either in the provision of primary care or in the provision of certain types of specialty care. Some, for example, serve as nurse midwives, assisting obstetricians and gynecologists; some are pediatric nurse practitioners or child health associates; some are orthopedic physician assistants or urological assistants or surgeon's assistants or pathology assistants or mental health technicians or ophthalmic assistants.

Some physician assistants are helping physicians working in rural areas or urban ghettos. For example, the Medex program, which provides three or four months of intensive university training to former military medical corpsmen, dispatches its trainees to serve an internship with a physician, usually in a rural area, who agrees in advance to hire the Medex at an annual salary of $8,000-$12,000 once his year of internship is over. Begun at the University of Washington in Seattle in 1970, this program by 1975 had been established in New Hampshire, Utah, California, Alabama, and North Dakota. The unique feature of this program is that no one can be trained unless a physician has promised to hire him.[1] Working closely with the physicians that hire them, nearly 70% of Medex assistants are helping in underserved areas.[2] One study found that a physician assistant can increase by 75% the number of patients a doctor can care for without reducing the quality of care.[3]

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[1] Lawrence Constance Nolan and George Nolan, "Status of the New Health Care Providers: The Physician's Assistants," *Medical Care Review*, February 1975, p. 434.

[2] "Physician's Assistant Jury Still Out," *American Medical News*, January 27, 1975, quoted in *Medical Care Review*, February 1975, p. 144.

[3] Carroll Cihlar, "Stephen L. Joyner, P.A.," *Hospitals*, June 1, 1975 p. 54.

Sometimes the physician assistants working in rural areas have only limited supervision. For example, the University of Mexico trained a nurse to provide medical care to a village without a doctor. A team of six Albuquerque physicians 60 miles away review her patient charts and can be consulted by phone, but the nurse practitioner reports that she rarely needs the six doctors' advice.[1] Physician assistants working in impoverished urban areas also may work with only limited supervision by physicians. One Tuscon, Arizona neighborhood health center, for example, has four nurse practitioners taking the place of two or three physicians. The center provides the only medical care received by some of the poor in this Mexican-American slum.[2] The physician assistants and nurse practitioners working in urban slums or rural areas with only limited supervision are clearly meeting a great medical need, but there is concern about the use of physician assistants in this manner for people who probably need more and better medical care than a physician assistant can provide on his own. Our health care system may just be moving from providing no care for the poor to providing second class care.

Most physician assistants, however, are literally assistants to a physician. Frequently they work with a physician who has a large private practice, usually as an internist or family practitioner, and who desires more free time. The physician assistant either enables the doctor to see more patients or enables him to reduce the amount of time he devotes to his practice. All too often the physician is in a prosperous area, for only in such an area can the physician assistant's pay requirements be met.[3] The assistant in such a position may thus increase the provision of primary care in an area, but he does little to remedy the geographic maldistribution of doctors in this country.

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[1] Joann Lublin, "'Supernurses' Provide Care for Thousands, Helping Doctors Cope," Wall Street Journal, July 3, 1974, p. 1.

[2] Ibid.

[3] Nolan, op. cit., p. 436.

Perhaps a majority of physician assistants work in large group practices or clinics or institutions, which readily lend themselves to an efficient division of labor among health professionals. At Kaiser-Permanente in Portland, Oregon, for example, physician assistants provide routine physical examinations to some patients under age 40 (mostly athletic checks and college physicals) and treat relatively minor medical and surgical problems, either by appointment or on a "drop-in" basis. More severe or chronic problems are either assigned initially or are transferred to an internist or other specialist. Of 207 physician assistant-patient encounters analyzed in one study, the physician assistant managed the problem without consulting a physician in 166 cases, discussed the problem with a physician in 17 cases, and found it necessary to refer the patient to another provider in only 24 instances.[1]

Physician assistants at Kaiser are also used to visit patients in nursing homes. They do not write orders for such patients but call in their findings to a physician, who then transmits his orders to the nursing home nurse. Under this program, nursing home patients are seen more often and on a regular basis.[2] Physician assistants can thus alleviate the neglect to which so many of our elderly are relegated.

In hospitals and clinics where physician assistants are used, protocols (printed questionnaires) are frequently used to enable non-physicians to diagnose and prescribe for common medical problems with accuracy and safety. The protocol, carefully developed from actual medical practice in handling complaints, ensures that the physician assistant asks all the necessary questions, does the tests indicated by the answers to the questions, and takes the steps indicated by the tests. Doctors check each protocol before the end of the day to make sure that all steps were followed properly and no unusual danger signals ignored, but a large percentage of patients can be treated by the physician assistant or nurse without impinging on the doctor's time, and, even when the protocol directs that the patient see a doctor, the time-consuming data collection and testing have already been done. The patients are generally satisfied with protocol-prescribed treatment, perhaps because they may "receive a more sympathetic, personal hearing from the protocol-user than from a pressured, possibly bored doctor."[1] Protocols also force thoroughness, for they do not rely on the occasionally fallible memory of a doctor. When protocols were introduced at the Duke University Medical Center, there was significantly improved performance by all providers, including physicians, in the collection of medical data, utilization of laboratory tests, and appropriate use of antibiotics.[2]

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[1] Paul Lairson, Jane Record, and Julia James, "Physician Assistants at Kaiser: Distinctive Patterns of Practice," Inquiry, September 1974, p. 215.

[2] Ibid., p. 218.

Physician assistants are trained in a variety of programs, the first of which was created at Duke University in 1965. By 1975, thanks in part to federal funding, there were 55 programs to train assistants to doctors in primary care, 36 to train assistants for specialists, and three programs training both kinds of assistants.[3] Entrance requirements for these programs include a high school diploma and often 2-4 years of college. Most programs also require (or prefer) that applicants have considerable experience in the health field as military medical corpsmen, as nurses, or in some other capacity. A year of training for a physician assistant costs approximately as much as a year of training for a medical student,[4] but most programs for physician assistants last two years, not the four years usual in a medical school. Also physician assistants generally do not have as much college training as medical students and do not have to go through the prolonged residency training required of doctors. Thus the total cost of training a physician assistant is considerably less than the cost of producing a licensed doctor. And once trained, the physician assistant commands a far lower salary than the typical doctor.

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[1] Alan Otten, "Doctor's Helpers," Wall Street Journal, April 4, 1974.

[2] Richard Grimm, Kitty Shimoni, William Harlan, and Harvey Estes, "Evaluation of Patient-Care Protocol Use by Various Providers," New England Journal of Medicine, March 5, 1975, p. 507.

[3] U.S. Department of Health, Education, and Welfare, Health Resources Administration, Physician Support Personnel 1974-75, DHEW Publication No. (HRA) 75-42 (Bethesda, Md.: 1975).

[4] "Physician's Assistant Jury Still Out," op. cit., p. 145.

In theory, then, the care provided by physician assistants and nurse practitioners should be less costly than care provided by a physician. Many doctors nevertheless charge patients as much for services delivered by their assistants as for the same services delivered by the doctor himself. Indeed, the AMA in December 1974 endorsed a resolution that physician assistant services should be billed by the physician who employs him and that those bills should be based on the physician's own customary charges. The AMA did qualify this by stating that a physician could reduce the bill for the assistant's services if the doctor's own experience showed that the services were provided at less cost than if the physician himself provided them.[1] And, in fact, a good number of doctors do charge patients less when they are examined by the assistant.[2] However, the medical profession is concerned that, if a physician reduces the charges for assistants' services and does not indicate the reason for the reduction on the bill, the physician's fee profile will be reduced, with a resultant lowering in the reimbursements allowed by Medicare and Blue Shield to all doctors in the area. On the other hand, when a doctor does not charge less for services performed by assistants, then use of assistants increases the doctor's profits without reducing the cost of health care to the consumer. A number of studies have, in fact, indicated that a physician assistant can increase a doctor's net profits from his practice.[3]

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[1] Ibid.

[2] Lublin, "Supernurses...", op. cit.

[3] Eugene Nelson, Arthur Jacobs, Karyn Cordner, and Kenneth Johnson, "Financial Impact of Physician Assistants on Medical Practice," New England Journal of Medicine, September 11, 1975, pp. 527-530.

Of course, this is not a problem in a prepaid group practice, for the lower cost of using physician assistants reduces the total cost of providing care to patients enrolled in the group, and presumably the lower cost is reflected in lower monthly premiums. A hospital or clinic using physician assistants should also be able to operate at a lower cost. However, there are sometimes problems in getting third party reimbursement for services performed by physician assistants when the services are not billed as being provided by a doctor.[1]

The legal problems created by physician assistants have still not been resolved. In an effort to ensure quality care, states have traditionally placed strict limits on who can provide medical care, and, until changes were made in the laws, physician assistants could be considered guilty of the illegal practice of medicine. Twenty-nine states have now amended their laws to provide for physician assistants. Seven states allow physicians to delegate tasks to their assistants so long as the assistant functions under the physician's supervision and control, although a question remains whether supervision has to be on the premises or can be exercised at a distance, via telephone for example. Twenty-two states, instead of leaving control of assistants to supervising physicians, have set up regulatory boards to establish rules and regulations about the education and employment requirements of physician assistants. The disadvantage of this approach is that there is as yet insufficient experience with physician assistants to be sure what rules and regulations are reasonable.[2]

Another difficulty is that nurse practitioners do not want to fall under the same legal provisions as physician assistants. "They view the physician's assistant as one who is performing highly technically oriented duties and are, in fact, assisting the physician. In particular, the nursing profession maintains that nurse practitioners are an extension of the nursing profession and are not members of a new profession. Therefore, many are lobbying for legal coverage under the nurse practice act."[1] Nurse midwives, in particular, have been struggling since 1925 to get special legal recognition of their profession.

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[1] Judith Lave, Lester Lave, and Thomas Morton, "The Physician's Assistant," Hospitals, June 1, 1971, p. 48.

[2] Nolan, op. cit., pp. 440-442.

Although 29 states have passed some sort of certification requirement for physician assistants, these requirements vary so much that it is difficult for a member of this new profession to move from state to state. Mobility is easiest when the assistant moves between states whose laws simply prescribe that a physician may delegate tasks to assistants.

Doctors' acceptance of physician assistants has been greater in theory than in practice. Surveys find that physicians consider it proper to delegate to assistants more tasks than they do in practice.[2] Acceptance of assistants also varies among the specialties. A study at Kaiser found that internists generally were happy to have assistants take over much of their primary care so that they could devote more time to the diagnostic services and subspecialties which distinguish them from a general practitioner. In contrast, pediatricians and obstetrician-gynecologists sometimes found assistants professionally threatening because so much of such doctors' time is devoted to treating well children or handling normal deliveries, services readily performed by assistants. If assistants take over all the simpler tasks from such doctors, the doctor might not be left with sufficient tasks that require his higher level of skill. Furthermore, "nurse midwifery may embody something of a role-invasion threat to physicians with respect not only to degree of substitutability but to dominance over the content of medical care as well. In general, modern nurse-midwives have tended to be more receptive than physicians to natural birth and other obstetrical techniques which permit the patient to play an active role in the delivery process."[1] Of course, the physician assistant poses no role-invasion threat to a harried rural practitioner trying to care for more patients than he can handle.

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[1] Nolan, op. cit., p. 443.

[2] "Physician's Assistant Jury Still Out," op. cit., p. 144.

Sometimes nurses, too, resist the invasion of physician assistants, but qualms about the assistants usually disappear after nurses have worked with them for a time.[2]

Physician assistants are overwhelmingly accepted by patients. In one survey of the patients of a pediatrician using a nurse practitioner, 94% said they were satisfied with the care they received, and 57% said that joint care from the doctor and the nurse practitioner was better than the care they had previously received from the doctor alone.[3] At a health center in a low-income housing project, where a pediatric nurse practitioner managed all the well child care, only two mothers asked to see the physician after being seen by the practitioner, and, during the period studied, the rate of failure to keep appointments dropped from an average of 60% per session to an average of 20%.[4]

One reason for the general patient acceptance of assistants is that they "can be drawn from the same communities as the patients they serve and chosen for their ability to communicate as well as other skills." In contrast, "doctors are not chosen or trained for their ability to relate well to other people...They tend to be upper middle class, laboratory and university oriented people, almost all male, and this often sets up walls between them and their patients."[5]

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[1] Jane Record and Merwyn Greenlick, "New Health Professionals and the Physician Role: An Hypothesis from Kaiser Experience," Public Health Reports, May-June 1975, p. 244.

[2] Lairson, et al., op. cit., pp. 208-209.

[3] Leonard Gross, "The Supernurse," McCalls, March 1971, p. 128.

[4] Nolan, op. cit., p. 437.

[5] Quotation from Dr. Sheldon Greenfield of the UCLA Medical School in Jerry Avorn, "The Future of Doctoring," The Atlantic, 1974.

Physician assistants may often be able to deal better with people than at least some doctors, and they thus may restore a little humanity to our machine-filled health care system. Enjoying the primary care that so many doctors find boring, physician assistants may improve the provision of primary care and continuing care in a system that has neglected these areas. But they may not do much to alleviate the geographic maldistribution of physicians: "At least one sociologist suggests that there will be a tendency for physician's assistants to follow the same distributional patterns that professional people generally do -- e.g., that they will tend to locate in the culturally and economically stronger communities."[1] Confirming this supposition, one study of 408 physician assistants and nurse practitioners found that only 13% were practicing in counties considered scarcity areas.[2] This study was by no means conclusive, but it does not encourage much hope that physician assistants will remedy the shortage of doctors in our rural areas and urban slums. Physician assistants may, however, help keep health care costs down a little -- if the doctors that hire them can be persuaded not to pocket the difference between the cost of care provided by an assistant and that of care provided by the doctor himself.

THE GROWTH OF GROUP MEDICAL PRACTICE

Our inadequate supply of physicians may be stretched a little farther by the trend among doctors toward group practice rather than solo practice. Group practices offer considerable potential for making doctors more efficient and enabling them to care for more patients. In the first place, transferring some of doctors' simpler chores to physician assistants and other allied health personnel can be more readily accomplished in a group practice. In large groups or clinics, chores can be divided up in such a way that non-doctors can perform a greater percentage of the tasks. It is easier to train allied health personnel to do a few specialized tasks than to teach them to be a general assistant to a doctor. For this reason, there are far more aides per physician in groups than in solo practices, and, as a corollary of this, the group physician can see more patients per hour than his colleague in solo practice.[1]

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[1] David Miles, "Physician's Assistants: The Evidence is Not in," New England Journal of Medicine, September 11, 1975, p. 556.

[2] Ibid.

Furthermore, groups large enough to hire administrators can free doctors from many of the chores involved in managing their business and financial affairs: accounting, processing, purchasing, and handling personnel and insurance. John Johnson, Executive Administrator of the Palo Alto Medical Clinic estimates that such chores take up more than a quarter of the solo practitioner's time but only about 1% of the time of a doctor in a big group practice.[2] As a consequence, the average doctor in a group is able to devote more hours per week to direct patient care than a solo physician can.[3] An additional bonus is the fact that the doctor's business affairs are likely to be better managed than if he did it himself. For example, in large groups medical records are often superior.[4]

Group practices not only have the potential of enabling doctors to care for more patients; they also make certain economies possible. Beyond the economies made possibly by greater use of allied health personnel are the economies gained when the expensive paraphernalia of modern medicine can be shared by a number of doctors and thus utilized more fully. The mounting cost of medical equipment is, in fact, a major force driving more and more doctors into group medical practice. The cost of setting up a solo practice has grown beyond the reach of many young doctors, and even older doctors find it a financial burden to keep their medical tools up to date.

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[1] Milton Roemer and William Shonick, "HMO Performance: The Recent Evidence," Health and Society, Summer 1973, p. 299.

[2] Dan Cordtz, "Change Begins in the Doctor's Office," Fortune, January 1970, p. 88.

[3] American Medical Association, Center for Health Services Research and Development, Profile of Medical Practice, 1974 (Chicago, Ill.: 1974), p. 61.

[4] Jerome Pollack, "The Grouping of Medical Practice," Community Hospitals and the Challenge of Primary Care (New York, N.Y.: Columbia University, Center for Community Health Systems, January 1975), p. 44.

The rapid changes in our medical technology and the increasing specialization of doctors have made group practice attractive in another way: In a group, colleagues are more readily accessible for consultation and advice. The doctor in a group also finds it easier to get away for continuing education programs. And in a multi-specialty group there is less likelihood of the discontinuity of care and duplication of procedures that can occur when a patient moves from one solo specialist to another.[1]

There are personal advantages, too, for the doctor in a group. He can keep more regular hours because the members of the group can take turns providing emergency medical care on weekends and in the evening, and no one need be on duty 24 hours a day. A group may also make it easier or cheaper for a doctor to get insurance, set up a retirement plan, and obtain other benefits, although these advantages can also be obtained by a solo practitioner who transforms his practice into a corporation.

A major attraction of group practice is the fact that earnings tend to be considerably higher for group doctors than solo practitioners, as can be seen in Exhibit IV-26. The group doctor's income, too, is more likely to be stable.[2] For young doctors, an additional advantage of entering an established group is the fact that they are able to practice their new skills full-time from the beginning rather than spending three to five years or more building up a practice. This is one reason that the percentage of young doctors in group practices is higher than for older doctors.

On the other hand, many doctors are reluctant to forfeit the independence that solo practice allows. They don't like having other doctors looking over their shoulder or having to follow the rules prescribed by the group. And many doctors feel that a close personal relationship with their

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[1] Sami Kassem and Anthony DeJute, "Hiring Medical Personnel: The Team Approach," Hospital Administration, Spring 1971, p. 18.

[2] Pollack, op. cit., p. 43.

Exhibit IV-26

MEDIAN NET ANNUAL EARNINGS OF PHYSICIANS IN SOLO PRACTICE, PARTNERSHIPS, AND CORPORATIONS, BY SPECIALTY: 1972

Specialty	Solo practice	Partnerships	Corporations
General Practitioners	$32,240	$43,100	$55,000
Internists	39,130	49,750	62,500
General surgeons	43,680	52,730	67,500
Obstetrician-gynecologists	41,200	59,000	68,750
Pediatricians	35,240	41,520	50,000
Psychiatrists	36,670	---	51,250

Source: Medical Economics, October 15, 1973, p. 248, and November 26, 1973, p. 182, quoted in: Jerome Pollack, "The Grouping of Medical Practice," Community Hospitals and the Challenge of Primary Care (New York, N.Y.: Columbia University, Center for Community Health Systems, January 1975), p. 43.

patients would be jeopardized in a large group. The advocates of such large groups as Kaiser deny this allegation. In groups of this sort, the patient is allowed to select his own "family doctor," and regularly scheduled appointments are normally with the chosen doctor. The Kaiser Plan also tries to arrange its physical facilities so as to reduce the patient's sense that he is dealing with a large impersonal institution. In the clinics, waiting areas are broken into small units shared by only a few doctors and their patients. The clinics usually adjoin a hospital, and Kaiser has deliberately chosen to have a number of smaller hospitals in each of its regions rather than a few large ones; this enables the patient to stay in his own community and makes it easier for his family to visit him. But, even with these arrangements, the patient may feel a less close personal relationship with a group doctor than with a private doctor. And waiting time for appointments is generally far longer in large group practices.

But despite the concern of doctors in and out of groups about patient-doctor relationships in groups, doctors in groups have a high rate of satisfaction with their practice. A 1972 survey found that over 50% of group doctors were "very" satisfied, and another 45% were "fairly" satisfied, a satisfaction rate about the same as that of doctors in solo practice.[1]

Despite the reservations of some doctors about group practice, the number of group medical practices in this country is growing rapidly. Actual statistics on the growth of groups are not precise since in each survey made by the American Medical Association slightly different definitions of "group practice" were used.[2] Also the 1965 and 1969 AMA surveys turned up groups which had been in existence in 1959 but which had been missed in the survey made that year. Estimates derived from the 1969 survey indicated that 3,155 groups existed in 1959, while the 1959 survey counted only 1,564 groups. Thus, the rate of growth in group practices cannot be calculated with any accuracy, but the fact of growth is dramatically clear. The number of groups tabulated in the AMA surveys quadrupled between 1959 and 1969. This is illustrated graphically in Exhibit IV-27 and statistically in Exhibit IV-28. The average size of groups, however, decreased from 8.4 physicians in 1959 to 6.3 in 1969, so the number of doctors in groups did not grow quite so rapidly as the number of groups themselves. Nevertheless, doctors reported in group practice grew from 7.8% of all non-federal doctors in office-based practice in 1959 to 15.3% in 1965 and 21.1% in 1969.[1]

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[1] Roemer and Shonick, op. cit., p. 279.

[2] In each survey three was the minimum number of physicians required for a group to be classified as such. In 1959 two part-time physicians counted as one full-time one. In 1965 three or more full-time doctors were required. In the most recent survey -- 1969 -- no differentiation was made between full-time and part-time employment.

Figures aren't available for more recent years, but it has been estimated that by 1974 there may have been as many as 10,000 to 15,000 medical groups and 65,000 to 70,000 doctors in group practices. By then the proportion of active physicians in group practice may have been as high as 35%.[2] HEW's national ambulatory medical care survey found that, in 1973-74, two out of five office visits to a doctor were to a doctor in a group.[3]

Statistics on group practices unearthed in the AMA's 1969 survey are outlined in Exhibit IV-29. This survey indicated that at the time there were in the United States 6,371 groups with "three or more physicians formally organized to provide medical care, consultation, diagnosis, and/or treatment through the joint use of equipment and personnel, and with the income from medical practice distributed in accordance with methods previously determined by members of the group." Group practices and group physicians are highly concentrated in the Pacific states, largely because of the predominance of the Kaiser Plan in that region. Of the 6,371 groups in existence in 1969, 17% were located in the Pacific states, where there were 32.8 group physicians per 100,000 population. At the other extreme, only 4% of all groups were located in New England, and that region had only 13.2 group physicians per 100,000 population.

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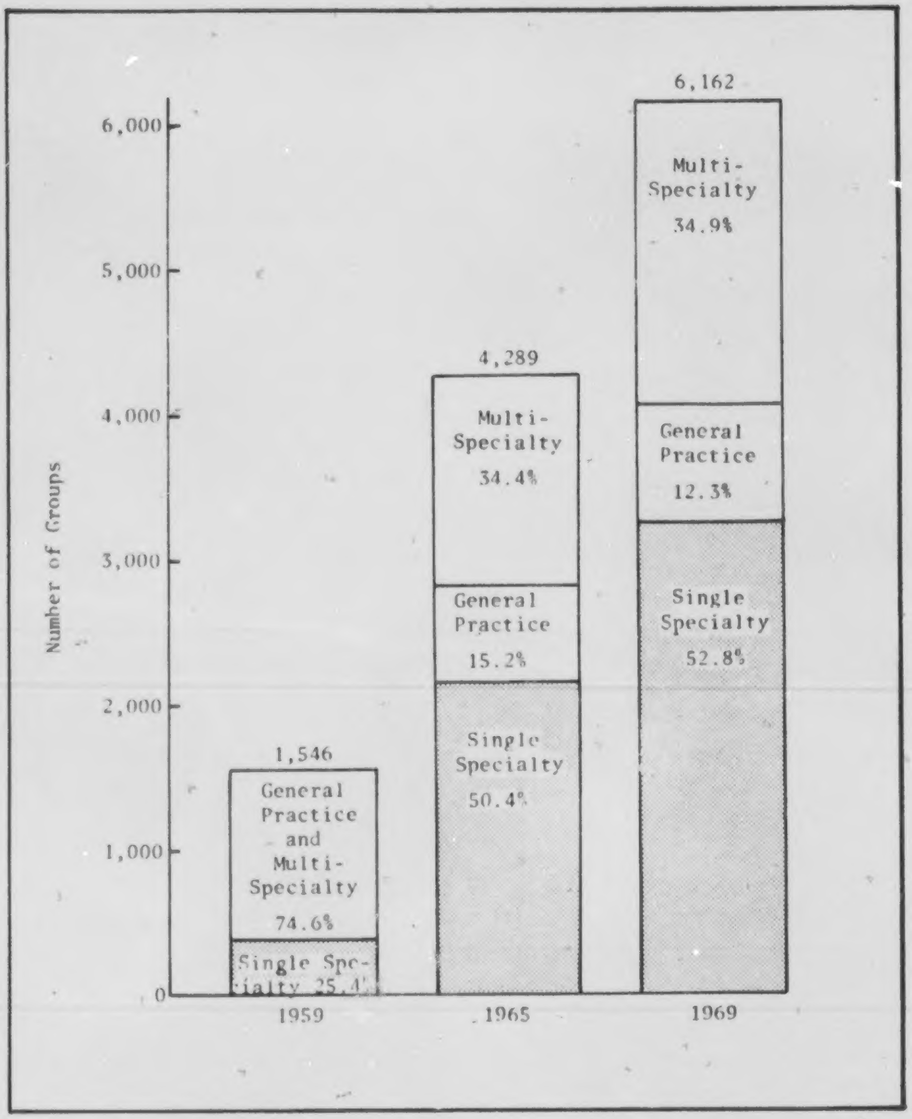
[1] The 1959 percent figure is calculated from the number of non-federal physicians in office-based practice in 1960. Statistics on the number of physicians were obtained from U.S. Department of Commerce, Statistical Abstract of the United States 1970 (Table No. 84) and 1964 (Table No. 81).

[2] Pollack, *op. cit.*, p. 40.

[3] U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, "National Ambulatory Medical Care Survey: May 1973-April 1974," Monthly Vital Statistics Report, July 14, 1975.

Exhibit IV-27

GROWTH OF GROUP PRACTICES BY TYPE OF GROUP: 1959, 1965, 1969



Source: American Medical Association, Center for Health Services Research and Development, Medical Groups in the U.S., 1969 (Chicago, Ill.: 1971), p. 74.

Note: 1969 definition of group was adjusted for comparability with 1965 data (i.e., a group must contain three or more full-time physicians). Also, physicians in the 1969 survey were reclassified from the 34 AMA specialties to the 17 specialties used in 1965.

Exhibit IV-28

CHANGES IN GROUP PRACTICES

1959, 1965, 1969

Characteristic	1959[a]	1965[b]	1969[c]
Number of Groups - total	1,546	4,289	6,162
Single Specialty	392	2,161	3,252
General Practice	1,154	651	758
Multispecialty		1,477	2,152
Number of Physicians - total[d]	13,009	28,381	38,834
Single Specialty	1,562	8,956	13,447
General Practice	11,447	2,284	2,612
Multispecialty		17,141	22,775
Average Size of Groups - all groups	8.4	6.6	6.3
Single Specialty	4.0	4.1	4.1
General Practice	n.a.	3.5	3.4
Multispecialty	n.a.	11.6	10.6
Geographic Distribution of Groups (% of total)			
New England	1.6%	3.5%	3.9%
Middle Atlantic	5.2	9.6	10.8
South Atlantic	11.8	12.6	14.1
East North Central	16.4	19.8	18.5
East South Central	6.3	6.0	6.5
West North Central	23.2	13.6	12.6
West South Central	15.1	11.9	11.2
Mountain	7.3	5.6	5.6
Pacific	13.0	17.3	16.7
Possessions	0.0	0.1	0.2
Allied health manpower/physician-total	NA	2.3	2.6
Registered Nurses		0.4	0.4
Licensed Practical Nurses & other nurses		0.3	0.3
X-ray Technicians & laboratory technicians		0.5	0.5
1965 clerical		0.8	
1969 (secretaries, receptionists, bookkeepers)			0.9
Other office personnel		0.1	0.4
Other professional or technical personnel		0.1	0.1
Number of groups with 50% or more prepayment activity	NA	88[e]	85

SOURCE: American Medical Association, Center for Health Services Research and Development, Medical Groups in the U.S., 1969 (Chicago, Ill.: 1971).

NOTES: NA = Not Available.

[a] Survey conducted by Public Health Service.

[b] Survey conducted by American Medical Association.

[c] 1969 figures adjusted to make them comparable with 1965 figures when slightly different definitions were used.

[d] Includes both full-time and part-time physicians.

[e] Source: Medical Group Management Association and American Association of Medical Clinics.

Interestingly enough, while 42% of group doctors are practicing outside urban areas with a population of 500,000 or more, only 37% of solo practitioners are in such non-urban areas.[1] This supports the contention of some that group practice is a means of attracting physicians to under-doctored non-urban areas. If an area cannot attract at least two doctors, it cannot get one.[2]

Nearly 50% of all medical groups were "single specialty groups" in 1969. General practice groups constituted 12% of the total, and multi-specialty groups comprised 38%. Only 11.6% of all groups qualified for full or associate membership in the American Association of Medical Clinics by having five or more full-time physicians representing at least three fields of practice or major specialties including internal medicine and general surgery. Such clinics do use the services of over 38% of all group practice physicians. The fact remains, nevertheless, that most group practices today are small partnerships of three to six doctors. Only 3.8% of all groups operate a hospital or clinic with hospital beds, although almost all groups have privileges at some hospital. Only a little over 6.2% of all groups indicated that they had prepayment plans, and almost half of those with prepaid plans reported that prepayment covered less than 5% of the dollar volume of their business. In short, very few groups in existence in 1969 could be classified as "Health Maintenance Organizations."[3] Today's doctor may be moving from solo practice to group practice, but he prefers a small group, usually with doctors in his own specialty. Not many doctors, even in our complex health care system, are "organization men".

And doctors in groups continue to practice medicine in much the same way solo practitioners do. Little effort is made to depart from the traditional one-to-one approach "by bringing together in group care patients with such conditions as hypertension, obesity, and pregnancy, who might benefit from the interaction with each other and be treated more efficiently.... Many groups have lagged in experimentation with new forms of staffing, facilities, and organization....Prevention is greatly overstated as a feature of group practice, and the notions of how to induce and achieve it are often quite primitive."[1]

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[1] American Medical Association..., Profile..., op. cit., p. 65.

[2] Pollack, op. cit., p. 47.

[3] See Chapter III for a discussion of Health Maintenance Organizations.

Groups usually operate with the same paternalism that solo practitioners show toward consumers. Consumers have as little input into the operation of group practices as solo practices. Fee-for-service groups often do not pass on to consumers any economies realized from operating on a group basis. "Doctors in such groups do not charge less than those in solo practice; they may even charge more....A physician-extender may be employed, which could be an economy, yet his services, after inputing a charge for supervision, may be billed at the same rate as those of a physician."[2] And, in fact, fee-for-service groups may not be operated any more economically than solo practices, for there is little or no incentive for economy. The extra allied health personnel may just be used for more elaborate work-ups. "More personnel per patient may be engaged beyond the point of advantage."[3]

So group practices are by no means a panacea for the deficiencies consumers find in our health care system. However, when they operate on a prepaid basis, as something resembling an HMO, they do have the potential of reducing health care costs. And, if managed well, they do enable doctors to care for more patients and thus can stretch our limited physician supply a little farther to meet our needs. And groups can make it more attractive for doctors to practice in non-urban areas.

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[1] Pollack, op. cit., p. 49.

[2] Ibid., pp. 48-49.

[3] Ibid., p. 48

Type of Group / Characteristic	All Group Practice[a]				Single Specialty Groups[b]	General Practice Groups[c]	Multispecialty Groups		
								Diversified Care G	
							All Multispecialty Groups[d]	At Least Five Physicians and Three Specialties[e]	
Number of Groups	6,371 (100.0%)				3,169 (49.7% of total)	784 (12.3% of total)	2,418 (38.0% of total)	740 (11.6% of all groups, 30.6% of multispecialty groups	478 (7. 19.8% groups)
Group Physicians	40,093 (17.6% of total nonfederal physicians; 19.9% of nonfederal physicians in patient care; 91% are employed in full-time group practice)				13,053 (32.6% of total # physicians in group practice; 5.7% of nonfederal physicians)	2,691 (6.7% of total # physicians in group practice; 1.2% of nonfederal physicians)	24,349 (60.7% of total # physicians in group practice; 10.7% of nonfederal physicians)	15,403 (38.4% of all group practice physicians; 63.3% of all physicians in multispecialty groups)	13,299 practic all phy special
Average Number of Physicians Per Group	6.3 (range: 3-800)				4.1	3.4	10.1	20,8	27.8
Age of Groups	21.9% were 3 years old or less 33% were 5 years old or less 25% were more than 15 years old				39.1% were 5 years old or less 17.9% were more than 15 years old	35.6% were 5 years old or less 22.9% were more than 15 years old	16.0% were 3 years old 25.3% were 5 years old 39.7% were more than 15 years old	6.3% were 3 years old or less	
Geographic Location	% of All Groups	% of All Group Physicians	Gr. Phys. 100,000 Pop.	Gr. Phys. as % of Nonfed. Phys.					
New England	3.9%	3.8%	13.2	9.3%	5.6%	0.4%	2.7%	3.0%	3.6%
Middle Atlantic	10.8	12.4	13.3	9.5	13.0	4.7	9.9	9.9	10.0
South Atlantic	14.0	13.0	17.3	17.3	16.7	10.1	11.7	9.9	10.0
E. North Central	18.7	17.3	17.4	17.9	18.0	18.5	19.6	22.4	21.5
E. South Central	6.4	5.0	15.2	19.4	6.8	5.7	6.1	4.5	4.2
W. North Central	12.4	12.2	30.2	32.3	9.4	22.8	13.1	14.3	14.4
W. South Central	11.0	10.1	21.0	23.6	9.9	14.2	11.5	11.8	11.1
Mountain	5.6	4.8	23.6	22.3	5.1	6.6	6.0	4.9	4.8
Pacific	16.9	21.3	32.8	23.1	15.2	16.3	19.3	19.3	20.1
Possessions	0.2	0.2	-	-	0.3	0.1	0.2	0.1	0.2
Total	99.9	100.1	19.9	17.6	100.0	99.9	100.1	100.1	99.9
# of Groups in Mass.	100 Groups				71 Groups	2 Groups	27 Groups		
# of Group Physicians in Mass.	701 Physicians				299 Physicians	7 Physicians	395 Physicians		
Specialties of Group Physicians									
Anesthesiology	7.4%				14.8%		2.6%	NA	NA
Dermatology	1.0				0.3		1.4		
General Practice	17.9				10.9		18.5		
General Sergery	9.2				3.9		12.7		
Internal Medicine	16.1				9.0		20.7		
Obstetrics & Gynecology	8.0				8.7		7.6		
Opthalmology	2.6				2.1		2.9		
Orthopedic Surgery	5.0				7.9		3.1		
Otolaryngology	2.0				1.3		2.4		
Pathology	3.1				5.2		1.6		
Pediatrics	7.3				6.9		7.5		
Psychiatry	2.4				2.0		2.6		
Radiology	8.7				15.2		4.6		
Urology	2.3				2.5		2.1		
All Others	7.0				33.0		9.7		
Total	100.0				100.0		100.0		

(Page 1 of 3)

All Group Practice[a]				Single Specialty Groups[b]	General Practice Groups[c]	Multispecialty Groups	Diversified Care Groups[g]	
						All Multispecialty Groups[d]	At Least Five Physicians and Three Specialties[e]	At Least Seven Physicians and Five Specialties[f]
71 (100.0%)				3,169 (49.7% of total)	784 (12.3% of total)	2,418 (38.0% of total)	740 (11.6% of all groups, 30.6% of multispecialty groups	478 (7.5% of all groups, 19.8% of multispecialty groups)
93 (17.6% of total nonfederal physicians; % of nonfederal physicians in patient : 91% are employed in full-time group ctice) (range: 3-800)				13,053 (32.6% of total # physicians in group practice; 5.7% of non-federal physicians) 4.1	2,691 (6.7% of total # physicians in group practice; 1.2% of non-federal physicians) 3.4	24,349 (60.7% of total # physicians in group practice; 10.7% of non-federal physicians) 10.1	15,403 (38.4% of all group practice physicians; 63.3% of all physicians in multi-specialty groups) 20,8	13,299 (33.2% of all group practice physicians; 54.6% of all physicians in multi-specialty groups) 27.8
were 3 years old or less were 5 years old or less were more than 15 years old				39.1% were 5 years old or less 17.9% were more than 15 years old	35.6% were 5 years old or less 22.9% were more than 15 years old	16.0% were 3 years old 25.3% were 5 years old 39.7% were more than 15 years old	6.3% were 3 years old or less	
pe	% of All Group Physicians	Gr. Phys. 100,000 Pop.	Gr. Phys. as % of Non-fed. Phys.					
%	3.8%	13.2	9.3%	5.6%	0.[illegible]%	2.7%	3.0%	3.6%
	12.4	13.3	9.5	13.0	4.7	9.9	9.9	10.0
	13.0	17.3	17.3	16.7	10.1	11.7	9.9	10.0
	17.3	17.4	17.9	18.0	18.5	19.6	22.4	21.5
	5.0	15.2	19.4	6.8	5.7	6.1	4.5	4.2
	12.2	30.2	32.3	9.4	22.8	13.1	14.3	14.4
	10.1	21.0	23.6	9.9	14.2	11.5	11.8	11.1
	4.8	23.6	22.3	5.1	6.6	6.0	4.9	4.8
	21.3	32.8	23.1	15.2	16.3	19.3	19.3	20.1
	0.2	-	-	0.3	0.1	0.2	0.1	0.2
	100.1	19.9	17.6	100.0	99.9	100.1	100.1	99.9
Groups				71 Groups	2 Groups	27 Groups		
Physicians				299 Physicians	7 Physicians	395 Physicians		
%				14.8%		2.6%	NA	NA
				0.3		1.4		
				[illegible]		18.5		
				3.9		12.7		
				9.0		20.7		
				8.7		7.6		
				2.1		2.9		
				7.9		3.1		
				1.3		2.4		
				5.2		1.6		
				6.9		7.5		
				2.0		2.6		
				15.2		4.6		
				2.5		2.1		
				33.0		9.7		
				100.0		100.0		

Exhibit IV-29

MEDICAL GROUPS IN THE UNITED STATES: 1969

Type of Group / Characteristic	All Group Practices[a]		Single Specialty Groups[b]		General Practice Groups[c]		Multispecialty Groups				
							All Multispecialty Groups[d]		Diversified Care Gro		
									At Least Five Physicians and Three Specialties[e]		At Le Physi Five S
Allied Health Personnel	Number	Per Physician	Number	Per Physician	Number	Per Physician	Number	Per Physician	Number	Per Physician	Number
Registered Nurses	15,920	0.4	3,673	0.3	1,403	0.5	10,844	0.4	7,235	0.5	6,259
Lic. Practical Nurses	6,118	0.2	916	0.1	719	0.3	4,483	0.2	2,817	0.2	2,414
Other Nurses	5,997	0.2	792	0.1	807	0.3	4,398	0.2	2,522	0.2	2,115
Lab. Technicians & Assistants	12,248	0.3	4,593	0.4	671	0.2	6,984	0.3	4,663	0.3	4,121
X-Ray Technicians & Assistants	7,717	0.2	3,443	0.3	403	0.2	3,871	0.2	2,325	0.2	1,985
Other Professional or Technical Personnel	5,580	0.1	1,668	0.1	114	<0.05	3,798	0.2	2,391	0.2	2,249
Secretaries, Receptionists, Bookkeepers	34,287	0.9	11,431	0.9	2,853	1.1	20,003	0.8	12,143	0.8	10,192
Other Office Personnel	14,259	0.4	2,161	0.2	491	0.2	11,607	0.5	9,557	0.6	8,824
Total	102,126	2.6	28,677	2.2	7,461	2.8	65,988	2.7	43,653	2.8	38,159
Form of Organization	% of Groups		% of Groups		% of Groups		% of Groups		Similar to all multispeciality groups, with exception that corporations accounted for 19.0%		NA
Single Owner	2.8%		1.3%		2.3%		4.9%				
Partnership	68.7		69.7		78.2		64.2				
Corporation	15.6		17.8		9.6		14.7				
Association	9.2		8.5		7.0		10.9				
Foundation	0.3		0.2		0.0		0.5				
Other	3.4		2.5		2.8		4.7				
Total	100.0		100.0		99.9		99.9				
Physical Arrangements				% of All Groups[h]		% of All Groups[h]		% of All Groups[h]			
% of Groups with a Hospital Office	17.9%		20.8%	57.9%	8.3%	5.8%	17.2%	36.4%	NA		NA
% of Groups without a Hospital Office	82.1		79.2	48.1	91.7	13.8	82.8	38.2			
Total	100.0		100.0		100.0		100.0				
# of Groups Owning or Operating Hospitals											
Hospital with 20 beds	37		3		9		25				
20-49	99		5		24		70				
50-99	56		7		8		41				
100-149	17		2		1		14				
150-199	9		1		0		8				
200+	17		4		0		13				
Unknown	3		1		0		2				
Total	238		23		42		173				
# of Groups with Privileges at Hospitals											
1 hospital	1,536		560		333		643				
2	1,335		612		187		536				
3	1,232		631		133		468				
4	728		429		58		241				
5	496		315		22		159				
6-8	539		361		15		163				
9-11	126		89		1		36				
12+	66		42		0		24				
Total	6,058		3,039		749		2,270				

Exhibit IV-29

MEDICAL GROUPS IN THE UNITED STATES: 1969

(Page 2 of 3)

All Group Practices[a]	Single Specialty Groups[b]		General Practice Groups[c]		Multispecialty Groups					
					All Multispecialty Groups[d]		Diversified Care Groups[g]			
							At Least Five Physicians and Three Specialties[e]		At Least Seven Physicians and Five Specialties[f]	
Per Physician	Number	Per Physician	Number	Per Physician	Number	Per Physician	Number	Per Physician	Number	Per Physician
0.4	3,673	0.3	1,403	0.5	10,844	0.4	7,235	0.5	6,259	0.5
0.2	916	0.1	719	0.3	4,483	0.2	2,817	0.2	2,414	0.2
0.2	792	0.1	807	0.3	4,398	0.2	2,522	0.2	2,115	0.2
0.3	4,593	0.4	671	0.2	6,984	0.3	4,663	0.3	4,121	0.3
0.2	3,443	0.3	403	0.2	3,871	0.2	2,325	0.2	1,985	0.1
0.1	1,668	0.1	114	< 0.05	3,798	0.2	2,391	0.2	2,249	0.2
0.9	11,431	0.9	2,853	1.1	20,003	0.8	12,143	0.8	10,192	0.8
0.4	2,161	0.2	491	0.2	11,607	0.5	9,557	0.6	8,824	0.7
2.6	28,677	2.2	7,461	2.8	65,988	2.7	43,653	2.8	38,159	2.9
	% of Groups		% of Groups		% of Groups		Similar to all multispeciality groups, with exception that corporations accounted for 19.0%		NA	
	1.3%		2.3%		4.9%					
	69.7		78.2		64.2					
	17.8		9.6		14.7					
	8.5		7.0		10.9					
	0.2		0.0		0.5					
	2.5		2.8		4.7					
	100.0		99.9		99.9					
		% of All Groups[h]		% of All Groups[h]		% of All Groups[h]	NA		NA	
	20.8%	57.9%	8.3%	5.8%	17.2%	36.4%				
	79.2	48.1	91.7	13.8	82.8	38.2				
	100.0		100.0		100.0					
	3		9		25					
	5		24		70					
	7		8		41					
	2		1		14					
	1		0		8					
	4		0		13					
	1		0		2					
	23		42		173					
	560		333		643					
	612		187		536					
	631		133		468					
	429		58		241					
	315		22		159					
	361		15		163					
	89		1		36					
	42		0		24					
	3,039		749		2,270					

Exhibit IV-29

MEDICAL GROUPS IN THE UNITED STATES: 1969

Type of Group Characteristic	All Group Practices[a]			Single Specialty Groups[b]	General Practice Groups[c]	Multispecialty Groups		
						All Multispecialty Groups[d]	Diversified C	
							At Least Five Physicians and Three Specialties[e]	
Groups with Prepayment Plans		% of Activity Prepaid						
# Groups with Prepayment Plans Not Including Blue Cross/Blue Shield	396 (6.2% of all groups)	All Percentages	100%	111	53	232 (16.4% of all multispecialty groups)	111 (15.2% of diversified care groups)	n.
		less than 5%	45.2					
		6-15% prepaid	17.1					
		16-25% prepaid	7.3					
		26-50% prepaid	8.3					
		51-75% prepaid	6.8					
		76-99% prepaid	10.6					
		100% prepaid	4.7					

SOURCE: American Medical Association, Center for Health Services Research and Development, Medical Groups in the U.S., 1969 (Chicago, Ill.: American Medical Association, 19

NOTES: AMA Council on Medical Service definitions.
NA = Not Available.

[a] The application of medical services by 3 or more physicians formally organized to provide medical care, consultation, diagnosis, and/or treatment through the joint use of equipment and personnel, and with the income from medical practice distributed in accordance with methods previously determined by members of the group.

[b] Medical groups providing services in only one field of practice or major specialty, except groups composed exclusively of general practitioners.

[c] Groups composed exclusively of general practitioners.

[d] Groups providing services in at least two fields of practice or major specialties.

[e] Groups having at least five full-time physicians representing at least three fields of practice or major specialties including internal medicine and general surgery.

[f] Groups having at least seven full-time physicians representing at least five fields of practice or major specialties including internal medicine and general surgery.

[g] The criteria used to define both types of "Diversified Care Groups" is used for membership in the American Association of Medical Clinics. Associate membership is granted to group with at least five physicians and three specialties and full membership is granted to groups with at least seven physicians and five specialties. These groups are not mutually exclusive The first type includes the second type.

[h] That type of group as percent of all groups with a hospital office is the top figure and below it is that type of group as percent of all groups without a hospital office.

Exhibit IV-29

MEDICAL GROUPS IN THE UNITED STATES: 1969

(Page 3 of 3)

All Group Practices[a]		Single Specialty Groups[b]	General Practice Groups[c]	Multispecialty Groups		
				All Multispecialty Groups[d]	Diversified Care Groups[g]	
					At Least Five Physicians and Three Specialties[e]	At Least Seven Physicians and Five Specialties[f]
% of Activity Prepaid						
All Percentages	100%	111	53	232 (16.4% of all multi-specialty groups)	111 (15.2% of diversified care groups)	n.a.
less than 5%	45.2					
6-15% prepaid	17.1					
16-25% prepaid	7.3					
26-50% prepaid	8.3					
51-75% prepaid	6.8					
76-99% prepaid	10.6					
100% prepaid	4.7					

Association, Center for Health Services Research and Development, Medical Groups in the U.S., 1969 (Chicago, Ill.: American Medical Association, 1971).

edical Service definitions.
s.

vices by 3 or more physicians formally organized to provide medical care, consultation, diagnosis, and/or treatment through the joint use of equipment
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ond type.

of all groups with a hospital office is the top figure and below it is that type of group as percent of all groups without a hospital office.

NURSES

Nurses are assuming an ever more important role in our health care system. Increasing in number faster than doctors, they are abandoning their traditional role as passive handmaidens to physicians. Many are working to restore the human touch to our high technology health care system.

THE CHANGING ROLE OF NURSES

The total number of active Registered Nurses (R.N.'s) in the United States rose from 375,000 in 1950 to 504,000 in 1960 to 815,000 in 1973. Thus the number of nurses more than doubled between 1950 and 1973. Nurses are growing in number faster than either the population or doctors. In 1950 there were 249 Registered Nurses per 100,000 population, but by 1973 there were 390 per 100,000 population. The number of active Registered Nurses for each active physician rose from 1.8 in 1950 to 2.4 in 1973. (See Exhibit IV-30.)

The role of nurses in our health care system is expanding almost as rapidly as their number. The increasingly complex equipment used in hospitals requires much more skill to operate, and some nurses are becoming specialists in managing particular types of facilities. Some nurses, for example, have become specialists in providing intensive care for cardiac patients. Such a clinical nurse specialist can "achieve a consultative relationship to physicians by offering their specialized skills and understanding of patients' 'psychobiologic needs.'"[1]

Some nurses have become "primary care nurses." Such nurses work in hospitals but are more independent than the traditional staff nurse. They write their own nursing plans for in-hospital and follow-up care for their patients and coordinate hospital services for them.[2]

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[1] Bernard Weinstein and Doris Lesser, "Health Manpower," Hospitals, April 1, 1974, p. 69.

[2] Diane Judge, "The New Nurse: A Sense of Duty and Destiny," Modern Healthcare, October 1974, p. 25.

Exhibit IV-30

ACTIVE REGISTERED NURSES: SELECTED YEARS 1950-1973

Year	Number	Number/100,000 Population	Number/ Active M.D.
1950	375,000	249	1.8
1960	504,000	282	2.0
1970	722,000	356	2.3
1973	815,000	390	2.4

Sources: American Medical Association, Center for Health Services Research and Development, Reference Data on Profile of Medical Practice: 1974 Edition (Chicago, Ill.: 1974), p. 98.

U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Health Resources Statistics, 1974 (Rockville, Md.: 1974), pp. 169, 201. Also 1965 edition, p. 111.

Nurses' skill in dealing with patients is also being used to teach patients how to care for themselves and how to cope--physically and psychologically--with their medical problems after they leave the hospital. Nurses assume a major role in caring for patients in rehabilitation units. Sometimes they help make plans for a patient's discharge, especially if nursing home care or home care are required. Thus nurses are in some instances making up for physicians' often inadequate interest in rehabilitation and convalescence.

Some nurses work in emergency rooms or outpatient clinics or large group practices, performing what is know as "triage": making an initial determination of what kind of doctor or other provider should see the patient and what priority the patient should be given if it is an emergency case.

Nurses often play an important role in PSRO's or utilization review procedures. (See Chapter II.) A nurse may review all admissions and lengths-of-stay to ascertain which ones fall outside the prescribed guidelines. Situations that fall outside the guidelines are referred to a doctor for a peer judgement on the necessity of the admission or the extra length of stay, but, in some cases, the physician responsible for the out-of-line situation may change his order after talking to the reviewing nurse and before the situation is brought up for peer review.

And PSRO nurses watch over the medical care provided in their hospitals and report to their medical advisors any substandard or questionable treatment. For example, when a PSRO nurse found that a physician had not come to the hospital in response to a call from the floor nurse that his patient was in a diabetic coma, she notified her medical advisor, who immediately arranged for two diabetes specialists to examine the patient.[1] PSRO nurses, though working under the supervision of a physician, are playing a less passive role than that traditionally assumed by members of their profession.

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[1] Donald Robinson, "How a Pioneering Program Is Bringing Better Hospital Care," Parade, May 4, 1975, p. 16.

In public health agencies and outpatient clinics, nurses are taking on some responsibilities that in the past might have been considered the province of doctors. For example, nurses now frequently run well-child conferences and are able to provide well-child care to children of all ages, to identify and appraise acute and chronic conditions and refer them to other facilities, and to evaluate and temporarily manage emergency situations until medical assistance is available.[1]

As indicated in the discussion of physician assistants, some nurses have taken advanced training that qualifies them as "nurse practitioners", so they can officially take over some of the doctor's chores. Pediatric nurse practitioners and nurse midwives, in particular, are being put to ever greater use in our health care system, and patients often find it easier to deal with these nurses than with the doctors themselves. Some nurses are getting advanced training in gerontology, a field of little interest to most doctors and one that offers the nurse an excellent opportunity to use her skills in health maintenance and education.[2] Although most nurse practitioners function as a team with a physician, a few -- perhaps 100 -- have set up an independent practice.[3] Three Manhattan nurses, for example, set up Community Nurse Practitioners, which is on call 24 hours a day and makes home visits at a moment's notice -- a service not often performed by doctors these days.[4]

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[1] Esther Brown, "As I See Nursing," The Indiana Nurse, March 1968.

[2] Judge, op. cit., p. 25.

[3] Lublin, "Supernurses...," op. cit.

[4] Pam Proctor, "Today's Nurse Wants More--For Herself and Her Patients," Parade, February 9, 1975.

As nurses have begun to take on assignments requiring increased skills and giving them greater responsibility, some of the traditional chores of nurses have been taken over by those with less training--practical nurses, nursing aides, orderlies, and attendants. Now that nurses' wages are finally rising to levels a little more commensurate with their training and responsibility, hospitals are finding it economic to use a higher proportion of workers who have less training and, therefore, cannot command as high wages. While the number of active Registered Nurses increased 62% between 1960 and 1973, the number of Licensed Practical Nurses (L.P.N.'s) increased 123%, and the number of nursing aides, orderlies, and attendants increased 143% during the same period. (See Exhibits IV-31 and IV-32.) Of all the persons employed in nursing and related services, Registered Nurses constituted 51% in 1950 but only 37% in 1973. In 1966 all the hospitals in the United States had 215 Registered Nurses per 1,000 beds and only 89.7 Licensed Practical Nurses per 1,000 beds; by 1973 the figure had risen to 290 R.N.'s per 1,000 beds and 150 L.P.N.'s per 1,000 beds.[1] The number of L.P.N.'s per active physician rose from 0.8 in 1960 to 1.4 in 1973.

With the growing use of L.P.N.'s, nursing aides, orderlies, and attendants, Registered Nurses have often been pushed into devoting more time to supervision and administration and less time to direct patient care. Many nurses are unhappy with this change in their function. As Barbara Ehrenreich of the Women's Health Forum pointed out, "Professional nursing, stripped of many of its original functions, has been left in an ambiguous and uncomfortable position--threatened from below by the functionally overlapping but cheaper practical nurses but barred from moving up without a drastic redefinition of nursing education."[2]

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[1] Calculated from Exhibit IV-18 and U.S. Department of Health, Education, and Welfare, *Health Resources Statistics: 1969*, pp. 148 and 153.

[2] Susan Fogg, "New Nursing Role More Like a Doctor," *Boston Globe*, August 22, 1975, p. 25.

Exhibit IV-31

NUMBER OF PERSONS EMPLOYED IN NURSING AND RELATED SERVICES BY TYPE OF PERSONNEL: SELECTED YEARS 1950-1973

	1950			1960			1970			
	Number	Percent of Total	Number/ Active MD	Number	Percent of Total	Number/ Active MD	Number	Percent of Total	Number/ Active MD	Number
Total	734,000	100.0%	3.5	1,087,300	100.0%	4.4	1,922,000	100.0%	6.0	2,209,000
Registered Nurses	375,000	51.1%	1.8	504,000	46.4%	2.0	722,000	37.6%	2.2	815,000
Licensed Practical Nurses	137,500	18.7	0.6	206,000	18.9	0.8	370,000	19.3	1.1	459,000
Nursing Aides, Orderlies, Attendants	221,000	30.1	1.1	375,000	34.5	1.5	815,000	42.4	2.5	910,000
Home Health Aides	500	0.1	(b)	2,300	0.2	(b)	15,000	0.8	(b)	25,000[a]

Sources: U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Health Resources Statistics, 1974 (Ro Md.: 1974), pp. 197,201,209. Also 1970 edition, p. 149 and 1969 edition, pp. 11, 145, 146, 152.

U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States, 1970 (Washington, D.C.: U.S. Gov Office, 1970), Table 84; also 1974 edition, Table 106.

American Medical Association, Center for Health Services Research and Development, Distribution of Physicians in the U.S., 1973 1974), p. 38.

[a] The number of home health aides in 1973 was estimated to be between 23,000 and 28,000.

[b] Less than 0.1.

Exhibit IV-31

NUMBER OF PERSONS EMPLOYED IN NURSING AND RELATED SERVICES
BY TYPE OF PERSONNEL: SELECTED YEARS 1950-1973

1950			1960			1970			1973		
Number	Percent of Total	Number/ Active MD	Number	Percent of Total	Number/ Active MD	Number	Percent of Total	Number/ Active MD	Number	Percent of Total	Number/ Active MD
4,000	100.0%	3.5	1,087,300	100.0%	4.4	1,922,000	100.0%	6.0	2,209,000	100.0%	6.5
5,000	51.1%	1.8	504,000	46.4%	2.0	722,000	37.6%	2.2	815,000	36.9%	2.4
7,500	18.7	0.6	206,000	18.9	0.8	370,000	19.3	1.1	459,000	20.8	1.4
1,000	30.1	1.1	375,000	34.5	1.5	815,000	42.4	2.5	910,000	41.2	2.7
500	0.1	(b)	2,300	0.2	(b)	15,000	0.8	(b)	25,000[a]	1.1	0.1

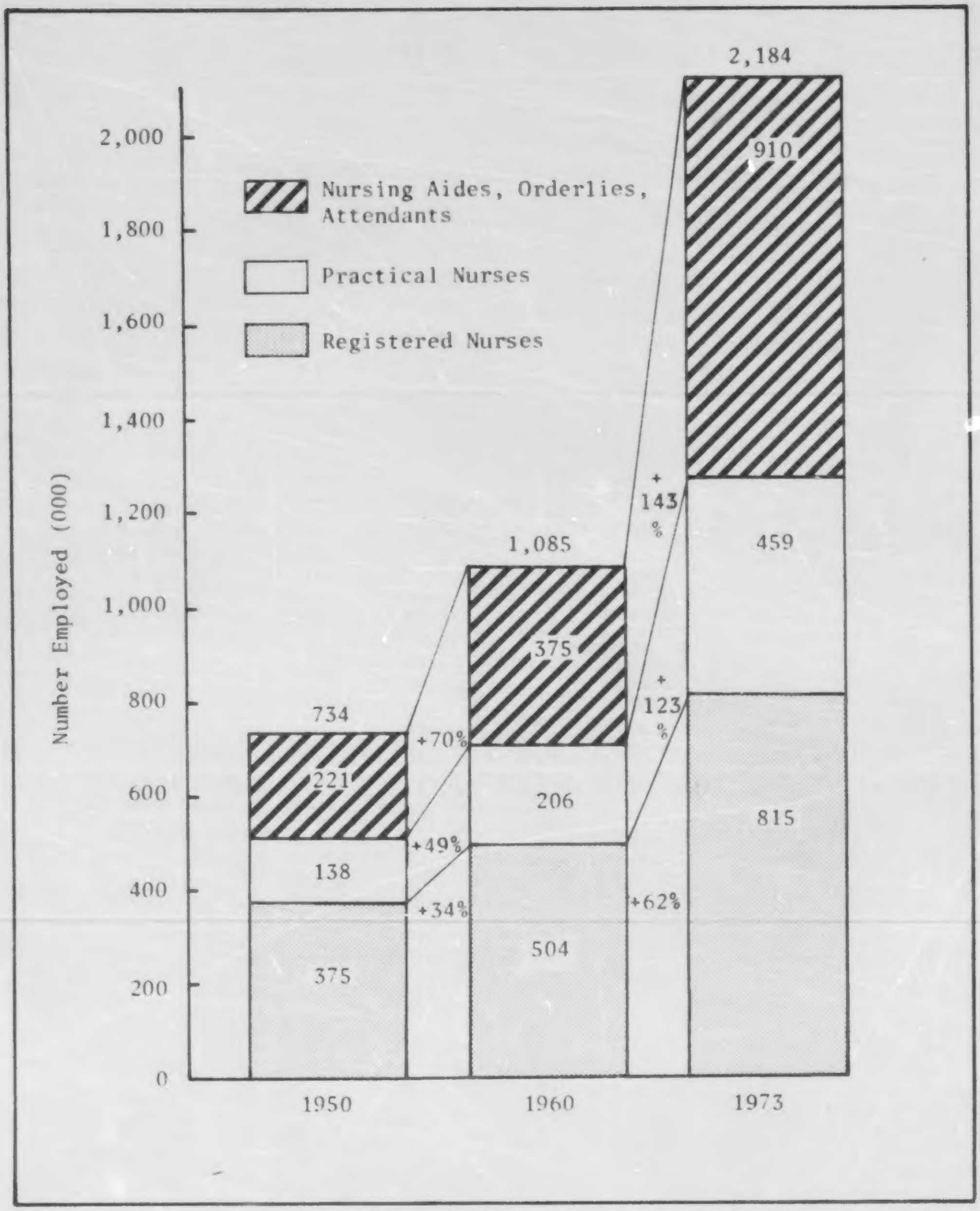
t of Health, Education, and Welfare, National Center for Health Statistics, Health Resources Statistics, 1974 (Rockville, p. 197,201,209. Also 1970 edition, p. 149 and 1969 edition, pp. 11, 145, 146, 152.

t of Commerce, Bureau of the Census, Statistical Abstract of the United States, 1970 (Washington, D.C.: U.S. Government Printing Table 84; also 1974 edition, Table 106.

al Association, Center for Health Services Research and Development, Distribution of Physicians in the U.S., 1973 (Chicago, Ill.:

th aides in 1973 was estimated to be between 23,000 and 28,000.

NUMBER OF PERSONS EMPLOYED IN NURSING AND RELATED
SERVICES BY TYPE OF PERSONNEL: 1950, 1960, 1973



Source: U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Health Resources Statistics, 1974 (Rockville, Md.: 1974), pp. 197, 201, 209. Also 1970 edition, p. 149 and 1969 edition, pp. 11, 145, 146, 152.

Pushed from below, nurses are growing more assertive in their relationship with doctors and with hospital administrators. In part, this is a result of the fact that more nurses today have had a college education (as will be discussed below). University-trained nurses have been taught to think for themselves, while in the hospital nursing school typical in the past, according to Elizabeth See, director of nursing research at the American Nurses' Association, nurses "were trained like seals: Do it over and over again until you get it right."[1] Another factor, of course, is the women's liberation movement, "which encourages the members of a profession which is more than 98% women to recognize their self worth as persons and professionals."[2]

Nurses are protesting the fact that the average hospital nurse makes only $9,500 a year, while the average income for physicians in this country in 1973 was $49,415.[3] Unlike ten years ago, nurses no longer automatically stand up to give their seat to a doctor entering a hospital room.[4] Nurses now are less timid about questioning doctor's orders and about making suggestions for improving the care of their patients. They are also questioning hospital administrators, protesting that poor hospital organization prevents them from treating patients as human beings. In 1975 nurses went on strike in California, not to demand higher wages but to demand changes in staffing patterns and nurse-patient ratios.

Nurses envision a new and important role for themselves, remedying some of the deficiencies in our health care system. "Doctors are concerned with the diagnosis and treatment of illness. Nurses are concerned with caring for the whole person, with helping patients and their families to become more responsible for their own health. Nursing has broader concerns than just disease. We are more aware of the needs of the community, of preventive health care. We want a collaboration with doctors, with a separate identity, and not to be assistants."[1]

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[1] Judge, op. cit., p. 22.

[2] Ibid., p. 21.

[3] Fogg, op. cit.

[4] Proctor, op. cit.

THE TRAINING OF NURSES

As the nurses' role has changed, so too has her training. Traditionally most nurses have been trained in diploma schools associated with hospitals. These schools give student nurses two or three years of training, which emphasizes hospital experience and provides only "unsystematic exposure to theoretical and tested knowledge."[2] In recent years, diploma schools have suffered from a lack of professional support from national health care organizations. In 1965, the American Nurses' Association published a "Position Paper" which urged that all nursing education take place within educational institutions (two- and four-year colleges and vocational high schools). This position was supported by the National Commission for the Study of Nursing and Nursing Education. These groups argue that the broader education provided by the college programs "will ultimately bring better nursing care to the public and better prepared nurses to the health care team." Of course, the advocates of hospital nursing schools retort that collegiate nursing education does not include enough nursing practice and direct patient care.

In addition to the attacks on their training programs, diploma schools have been suffering from a lack of monetary support from federally funded programs. And those seeking to control health care costs criticize the educational role of hospitals because the patients ultimately pay for any hospital training. As a result, many of the small diploma schools in the country, and some of the larger ones, have closed. They have experienced difficulty in attracting students and retaining qualified faculty, and hospitals are finding it increasingly difficult to finance their nursing schools.

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[1] Fogg, op. cit., quoting a Ms. Ricardi at the International Conference on Women in Health Care.

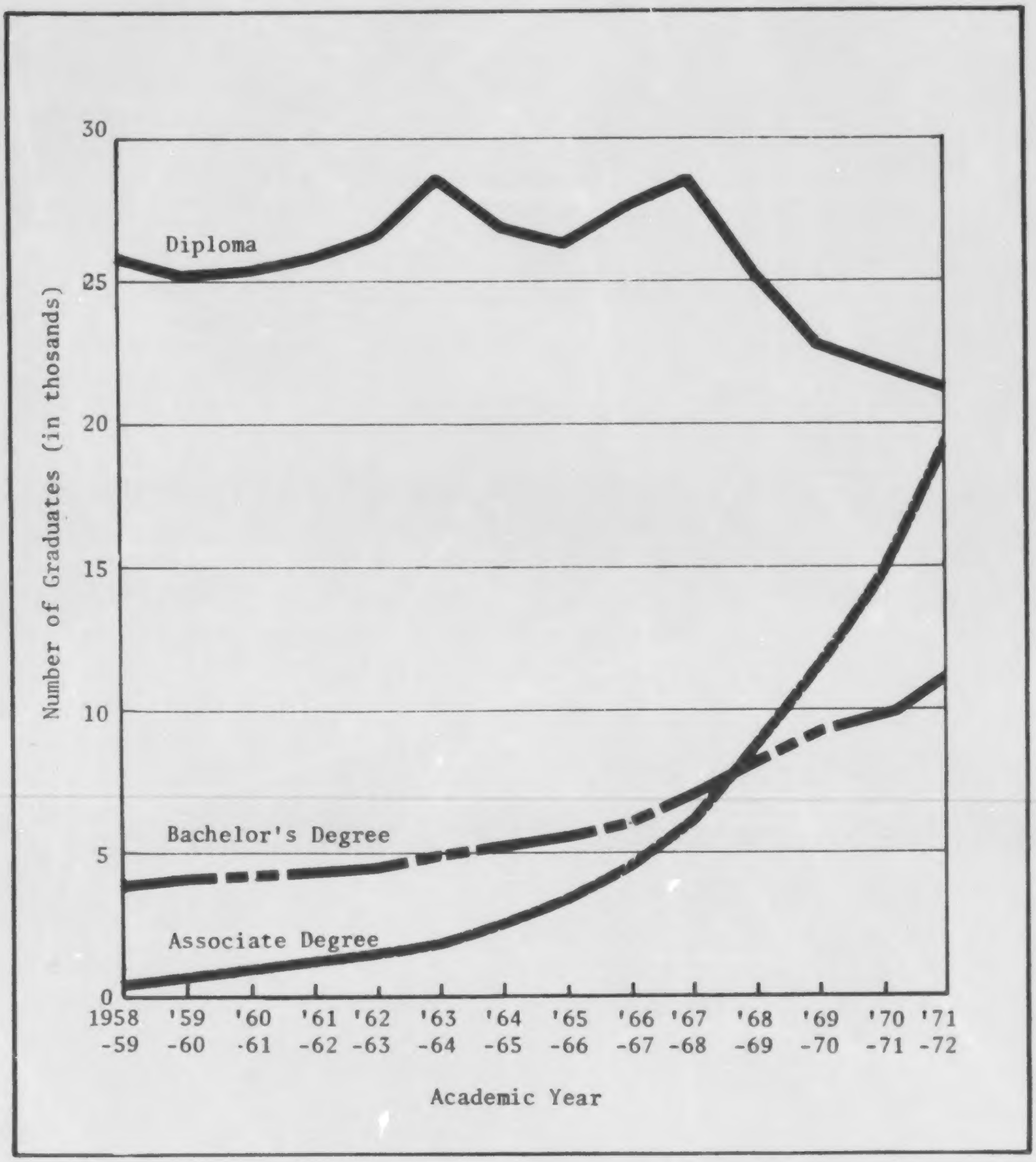
[2] O. W. Anerson, Toward an Unambiguous Profession? A Review of Nursing, Chicago Center for Health Administration Series, No. A6, 1968, p. 11.

This controversy over the role hospitals should play in educating potential nurses has resulted in a general decline of the diploma school. While 85% of all nursing school graduates came from diploma schools in 1959, by 1972 this figure had dropped to 42%. In 1959, of all nursing graduates, 13% came from four-year baccalaureate programs; by 1972, the figure had risen to 21%. (See Exhibit IV-33.)

Growing even faster than the baccalaureate programs are the associate degree programs offered by two-year community schools. In 1959, such associate degrees were awarded to 2% of all nursing graduates, but in 1972 associate degrees went to 37% of the nursing graduates. These two-year programs prepare students for the Registered Nurse qualifying examination, but not all of those who win the associate degree succeed in passing the exam. However, these programs are popular with students because they cost the student much less than the baccalaureate programs.

Exhibit IV- 33

NURSING SCHOOL GRADUATES BY TYPE OF DEGREE: 1959-1972



Source: U.S. Department of Health, Education, and Welfare, Public Health Service, Health Resources Statistics, 1972-73 (Washington, D.C.: U.S. Government Printing Office, 1973), p. 221.

American Nurses' Association, Facts About Nursing 72-73 (Kansas City, Mo.: 1974), p. 78.

Note: In 1963-1969 the number of graduates from a bachelor's degree program includes students in one basic program that gives a master's degree.

SUMMARY

Health care in this country has undergone revolutionary changes since World War II. A multitude of forces, each one reinforcing the other, has pushed the system into ever greater emphasis on secondary and tertiary care, to the neglect of the other levels of care. Government funding of research has stimulated medical discoveries, many of which require elaborate equipment and highly specialized personnel to put into practice. Hill-Burton monies helped finance the construction of hospitals to house the new equipment, and Medicare reimbursement of hospitals for depreciation enabled these institutions to add ever more sophisticated equipment. Government research grants led to a growth in the power and prestige of medical schools and their affiliated teaching hospitals, and these institutions in turn inspired increasing specialization among doctors and intensified interest in care requiring expensive technology.

The expansion of health insurance and the inauguration of Medicare reinforced these trends in three ways: Since coverage was better for inpatient care than ambulatory care, an incentive was created to get needed care in a hospital whenever possible. Doctors and their patients felt no constraint to economize on the type of hospital care used since insurance or Medicare paid most hospital bills. With third parties reimbursing hospitals for all costs, no matter how rapidly those costs rose, administrators had no incentive to economize and readily acceded to doctors' requests for the installation of new facilities and services. Health insurance and Medicare, in effect, removed the restraint of price competition from our free enterprise health care system. The supply of hospital facilities was determined by physician demand, not consumer needs.

The growing complexity of medicine fostered specialization among doctors, and the specialists increasingly manning the community hospitals springing up in our burgeoning suburbs pressured "their" hospitals to add the equipment required by their diverse specialties. The greater specialization of doctors also pushed up hospital utilization, for it is doctors who determine the treatment to be given. Specialization, too, contributed to the geographic maldistribution of doctors that followed the draining of our wealthier citizens from inner cities and rural areas. The maldistributed supply of doctors influenced the supply of hospital beds, and the two together determined the demand for medical care; it was not demand or medical needs that determined supply.

Infused with funds from the government and health insurance, the health care delivery system has grown like a well nourished Topsy. The growing specialization of doctors meant that few in the medical world were in a position to evaluate the overall health care needs of the nation or of a community or of a hospital or even of an individual patient. Each specialty scrambled to get more research grants and to add facilities to improve the care it could provide for particular medical problems. Few saw that there were limits to the resources that could be devoted to health care, that our multitudinous needs had to be balanced against one another and priorities selected. Great energy was devoted to improving the quality of certain types of care, but little attention was paid to integrating care or to delivering care in the most efficient and economical manner.

The development of health care was guided in good measure by the scientific and economic interests of the medical fraternity, and there was no effective mechanism for the consumer to exercise much influence over health care. Hospitals became the keystone of the system, but it was largely the doctors who determined what services were to be offered and in what institution with what equipment. Third parties meekly paid a good portion of the bills. And while some consumers were receiving excellent -- and, at times, too elaborate -- secondary and tertiary care in hospitals, others were flooding emergency rooms in frantic quest of simple primary care or were unable to get care at all.

Our emphasis on top quality secondary and tertiary care pushed health care costs through the ceiling until the government and the health insurers grew alarmed. Government at various levels instituted rate regulation, Certificate of Need laws and other regulations to curb capital expenditures, comprehensive health planning and Health Systems Agencies, utilization review and PSRO's. Health insurers experimented with various types of cost controls. Health insurance coverage was expanded to provide better coverage of outpatient care and thus to reduce the incentive to use expensive inpatient care unnecessarily.

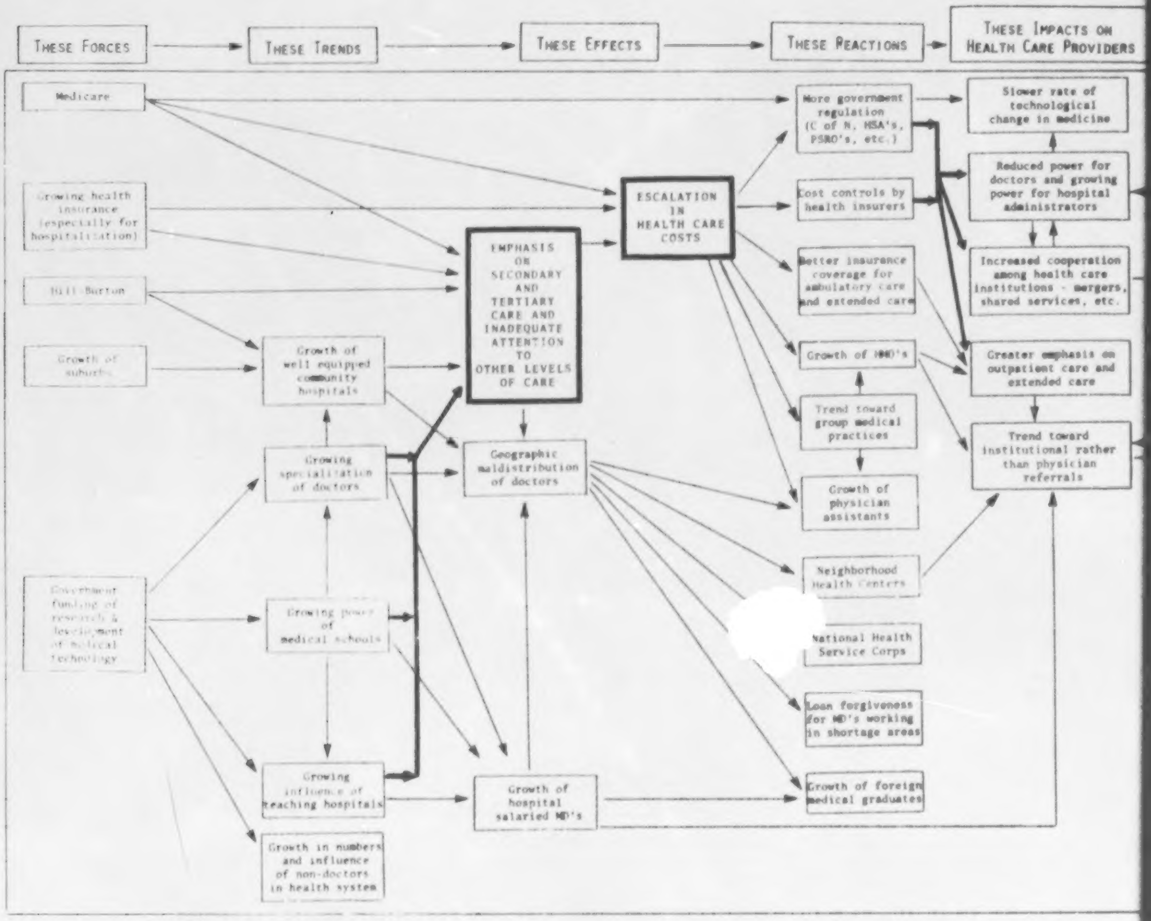
In the health care delivery system itself, there was a trend toward group medical practices and the use of physician assistants, both of which have the potential for reducing health care costs, although all too often these new developments increased physicians' profits without providing consumers with an appreciable reduction in their medical bills. Under pressure from court rulings, the American Medical Association began to relax its determined resistance to prepaid group practices, which have proved better able to cut costs than fee-for-service group practices. In response to the competition of prepaid group practices, medical societies began to create medical care foundations as a method of curbing cost escalation while retaining fee-for-service care. The government has tried to foster Health Maintenance Organizations, in the form either of prepaid group practices or of medical care foundations with pre-payment.

Heeding consumers' cries about inadequate primary care (and concerned that this inadequacy was stimulating the inflation in health care costs), the government has sought to shift the system's emphasis a little away from secondary and tertiary care. Government research grants have been cut back. Hill-Burton funds have been reduced, and those that remain are increasingly used for outpatient rather than inpatient facilities. Neighborhood health centers, migrant health centers, and community mental health centers were built with the aid of government funds. The National Health Service Corps was created in an effort to get doctors to underserved areas. This goal was also promoted by a program of loan forgiveness for medical students who agreed to practice for a time in underserved areas. Partly because of government prodding, medical schools and teaching hospitals began to expand their training in "family medicine" and to recruit more students from minority groups and non-urban areas in hopes that such students would be interested in providing primary care in doctor-poor places.

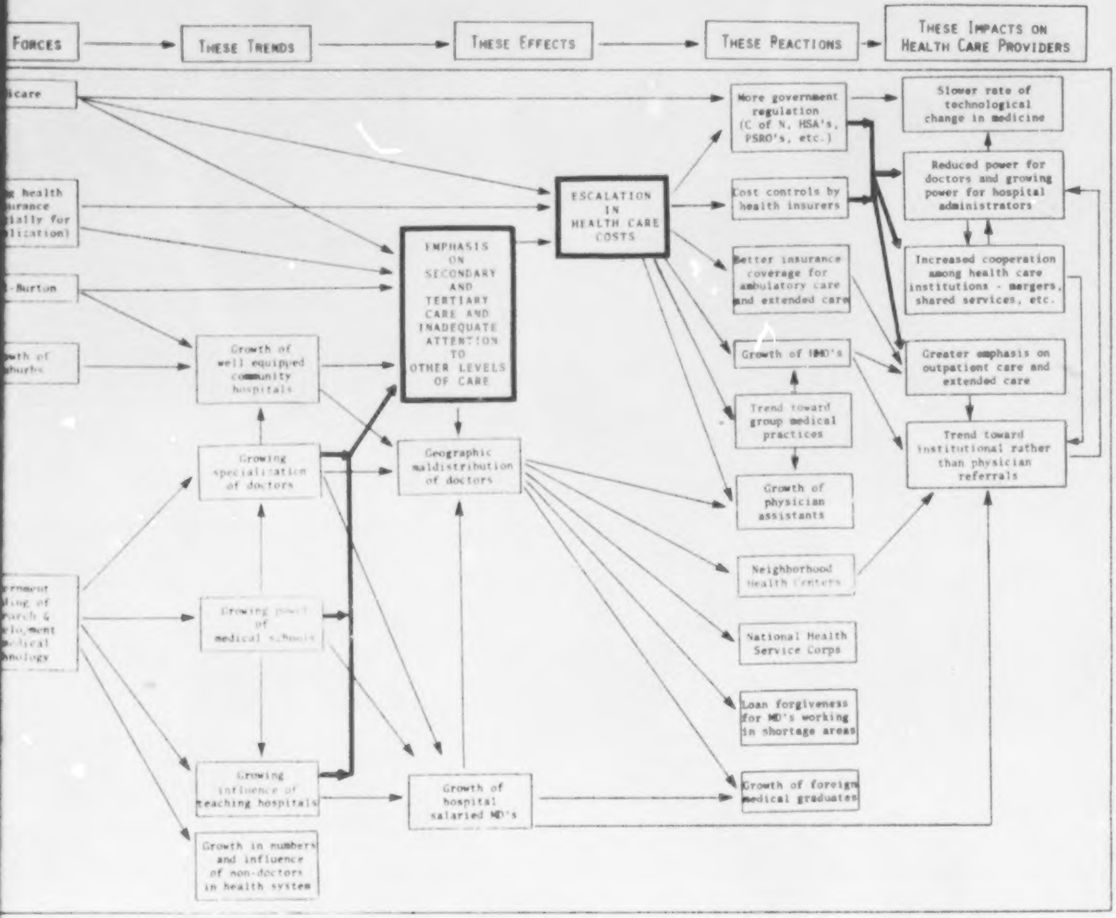
More sensitive to community pressures than physicians, hospitals began to reorganize their outpatient and emergency departments to provide better care to the patients inundating them in quest of primary care difficult to obtain elsewhere. Some hospitals sponsored neighborhood health centers. Some contracted with a group medical practice to provide care in their outpatient or emergency departments, and some of these group practices began to operate, at least partially, on a prepaid basis. Many hospitals hired foreign medical graduates and physician assistants to provide the patient care not being delivered by American physicians. The holes in our health care system, unconsciously created by the medical profession, began to be filled by hospitals, by other health personnel, and by government programs.

The shifting political and economic ground under our elaborate health care structure is beginning to leave its mark. (See Exhibit.) The power center in the system is moving away from the doctors toward hospital administrators and government regulators. Physician referrals are being displaced to some extent by institutional referrals -- referrals between doctors within a group practice or neighborhood health center and from such an institution to a hospital and from a hospital to another hospital or a nursing home. Hospitals, under pressure to cut costs, are making some effort to coordinate their work with other institutions, and some have gone so far as to share services or even to merge in some fashion. Nurses, growing more assertive vis a vis doctors, are trying to push the health care system into more careful attention to patients' needs, and nurse practitioners and physician assistants are making an effort to fill some of the gaps in our provision of primary care. And the consumer, better educated and more affluent, is making his voice heard a little more -- through malpractice suits, pressure on legislators and regulators, and representation on hospital boards and Health Systems Agencies. Change is in the air.

TRENDS IN THE U.S. HEALTH CARE SYSTEM


THESE FORCES
THESE TRENDS
THESE EFFECTS
THESE REACTIONS
THESE IMPACTS ON HEALTH CARE PROVIDERS
Medicare
Growing health insurance (especially for hospitalization)
Hill-Burton
Growth of suburbs
Government funding of research & development of medical technology
Growth of well equipped community hospitals
Growing specialization of doctors
Growing power of medical schools
Growing influence of teaching hospitals
Growth in numbers and influence of non-doctors in health system
EMPHASIS ON SECONDARY AND TERTIARY CARE AND INADEQUATE ATTENTION TO OTHER LEVELS OF CARE
Geographic maldistribution of doctors
Growth of hospital salaried MD's
ESCALATION IN HEALTH CARE COSTS
More government regulation (C of N, HSA's, PSRO's, etc.)
Cost controls by health insurers
Better insurance coverage for ambulatory care and extended care
Growth of HMO's
Trend toward group medical practices
Growth of physician assistants
Neighborhood Health Centers
National Health Service Corps
Loan forgiveness for MD's working in shortage areas
Growth of foreign medical graduates
Slower rate of technological change in medicine
Reduced power for doctors and growing power for hospital administrators
Increased cooperation among health care institutions - mergers, shared services, etc.
Greater emphasis on outpatient care and extended care
Trend toward institutional rather than physician referrals

TRENDS IN THE U.S. HEALTH CARE SYSTEM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Growth of well equipped community hospitals
Growing specialization of doctors
Growing power of medical schools
Growing influence of teaching hospitals
Growth in numbers and influence of non-doctors in health system
EMPHASIS ON SECONDARY AND TERTIARY CARE AND INADEQUATE ATTENTION TO OTHER LEVELS OF CARE
Geographic maldistribution of doctors
Growth of hospital salaried MD's
ESCALATION IN HEALTH CARE COSTS
More government regulation (C of N, HSA's, PSRO's, etc.)
Cost controls by health insurers
Better insurance coverage for ambulatory care and extended care
Growth of HMO's
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